

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.







eserve
241
243

Pesticides

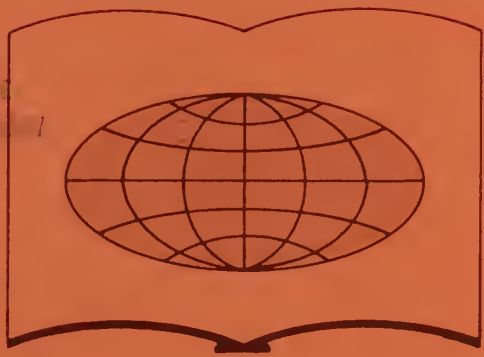
DOCUMENTATION

BULLETIN

U. S. DEPARTMENT OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY

MAY 8 1969

CURRENT AGRICULTURAL BULLETINS



Volume 4 Number 19
September 13, 1968



Use Pesticides Safely

FOLLOW THE LABEL

U.S. DEPARTMENT OF AGRICULTURE

PESTICIDES DOCUMENTATION BULLETIN

328824

Volume 4
September 13, 1968
Number 19

A Bi-Weekly Publication of U.S. Department of Agriculture

OBJECTIVES AND SCOPE

The *Pesticides Documentation Bulletin* is compiled by the National Agricultural Library's Pesticides Information Center to facilitate national research efforts in all aspects of pest control. This bi-weekly index to the literature includes coverage of diseases, insects, nematodes, parasites, weeds and other pests affecting plants, animals, man, our natural resources and other values in man's environment. Special emphasis is given to the literature on toxicological, physiological and epidemiological aspects of pests and their control by chemical biological and integrated methods.

For broader coverage of literature on agriculture and related subjects, please consult the *Bibliography of Agriculture*, a monthly publication of the National Agricultural Library.

FORMAT

The *Bulletin* is a categorized bibliography, with citations arranged alphabetically by author under the following major subjects:

- 10 Entomology
- 20 Crop Protection
- 30 Livestock Protection
- 40 Commodity Protection
- 50 Environmental Contamination
- 55 Residues
- 60 Toxicology
- 65 Plant Physiology & Biochemistry
- 70 Chemistry
- 80 Engineering
- 90 Industry

Citations: Each citation consists of an accession number assigned serially with the last two digits representing the Bulletin's issue year, i.e. 3286-67. The citation number (minus the year) is used in all indices. Following the accession number is the full title of the article; all personal authors; an abbreviated journal title; volume, issue and inclusive page numbers; date of publication; language abbreviation, if other than English; and the National Agricultural Library's call number. Subject descriptors, patent or grant numbers, bibliographer's notes, and abstracts or extracts may follow each citation when appropriate.

Subject Index: Subject descriptors appear in the index followed by title arranged numerically by accession number. The Agricultural/Biological Vocabulary developed by the National Agricultural Library is used as a basic thesaurus of descriptors.

Biographical Index: Names of first authors are arranged alphabetically, followed by organizational affiliation and accession number.

Author Index: Names of personal authors are arranged alphabetically, followed by accession numbers of pertinent citations.

Organizational Index: Names of corporate authors or sponsoring organizations are arranged alphabetically followed by accession numbers of pertinent citations.

Other Files

In addition to the citations contained in the Bulletin, the Pesticides Information Center maintains two other files, the INTREDIS Register and the Herbicides Data File.

The INTREDIS Register is a computer data bank in the field of forest pathology. It contains title and author references to abstracted articles including subject, country, host plant genus or species, organisms causing the diseases, abstracting journal and year of publication. The computer search uses boolean parameters in any combination of elements listed.

The Herbicides Data File consists of reports on field tests conducted by the Crops Protection Research Branch, Crop Research Division, Agriculture Research Service. Each test record contains the following items of information:

- Compound Tested
- Company furnishing the compound
- Author or Investigator
- Test Sponsor
- Date
- Location
- Mode of Application
- Rates of Application
- Soil Types
- Carriers
- Crops or Weeds tested with phytotoxicity ratings
- Associated documentation

Note: Items subject to proprietary restriction will be suppressed when appropriate.

AVAILABILITY OF REFERENCES CITED

Search Requests

Each item appearing on magnetic tapes in the Pesticides Information Center is fully searchable on the computer. Questions submitted to the Center should fully describe all parameters of the desired information in narrative form.

Search requests may be submitted to:

U.S. Department of Agriculture
National Agricultural Library
PESTICIDES INFORMATION CENTER
Beltsville, Maryland 20705

Loans

Most of the material in the National Agricultural Library collection may be borrowed by employees of the Department of Agriculture and by other libraries. In requesting loans, please include the Library call number found with the citation. Loan of periodicals is restricted to the Washington, D.C. area. Foreign statistical publications and rare books are loaned only by special arrangement.

Free Distribution

U.S.D.A. publications: Domestic requests for publications of the United States Department of Agriculture will be supplied free to libraries and other qualified agencies and organizations upon application to the United States Department of Agriculture, Office of Information, Washington, D.C. 20250, as long as the supply lasts. Foreign institutions, organizations and agencies which issue publications may obtain U.S.D.A. publications in exchange by writing to the United States Department of Agriculture, National Agricultural Library, Exchange Unit, Washington, D.C. 20250.

State Agricultural Experiment Station and Extension Service publications are available except where noted, and as long as the supply lasts, from the issuing station or service. The National Agricultural Library does not distribute them; however, reproductions are available at regular Library rates.

Reproduction

All articles listed may be obtained in microfilm or photoprint form from the United States Department of Agriculture, National Agricultural Library, Photoduplication Section, Washington, D.C., 20250. Copying charges for each periodical or book are:

MICROFILMS: \$1.00 for each 30 pages or fraction copied from a single article or book.

PHOTOPRINTS: \$1.00 for each 4 pages or fraction copied from a single article or book.

RUSH SERVICE: Will be furnished upon payment of \$1.00 additional for each order.

Payment must accompany the order. Cash, Library coupons, check or money order drawn to the National Agricultural Library, U.S.D.A., are acceptable. Payment for orders originating outside of the United States should be made by American bank, or by UNESCO book coupons. Superintendent of Documents coupons and requests to furnish photocopy to be paid from Superintendent of Documents Deposit funds cannot be honored. Credit may be extended only to Government agencies and institutions. Billing address should be indicated.

Magnetic Tape Files

The files of the *Pesticides Documentation Bulletin*, its Vocabulary, the Herbicides Data, and INTREDIS are available on magnetic tape for the IBM-360 series computer. All tapes are nine-track, 800 bpi.

Tape prices are \$60.00 for the first tape reel on an order plus \$47.50 for each additional reel of magnetic tape. Tape orders may be submitted to:

U.S. Department of Agriculture
National Agricultural Library
AUTOMATION STAFF
Beltsville, Maryland 20705

Library Coupons

National Agricultural Library coupons, valued at \$1.00 each, may be purchased in any quantity.

ACKNOWLEDGMENT

The Pesticides Information Center, National Agricultural Library, gratefully acknowledges the cooperation and assistance of the Department of Defense; Health, Education, and Welfare; and Interior; the Federal Committee on Pest Control, and state and industrial organizations in the development of the Center and preparation of this Bulletin. Special thanks are expressed to the Federal Committee on Pest Control for its suggestions and support. We hope the Bulletin will serve as an example of the effectiveness of interdepartmental cooperation and the speed with which effective services can be developed through a coordinated and cooperative interdepartmental effort.

Use of funds for printing this publication approved by the Director of the Bureau of the Budget (May 23, 1968).

PLEASE GIVE COMPLETE BIBLIOGRAPHIC INFORMATION AS IT APPEARS IN THIS PUBLICATION FOR EACH ITEM REQUESTED.

This publication reports research involving pesticides. It does not contain recommendations for their use, nor does it imply that the uses discussed here have been registered. All uses of pesticides must be registered by appropriate State and/or Federal agencies before they can be recommended.

CAUTION: Pesticides can be injurious to humans, domestic animals, desirable plants, and fish or other wildlife—if they are not handled or applied properly. Use all pesticides selectively and carefully. Follow recommended practices for the disposal of surplus pesticides and pesticide containers.

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402. \$32.00 per year, domestic; \$40.00 per year, foreign. Single copies vary in price.

TABLE OF CONTENTS

BIBLIOGRAPHY (Citations)		<i>Page</i>
10	ENTOMOLOGY.....	1
	Systematics.....	1
	Physiology and Biochemistry.....	2
	Genetics.....	8
	Medical Entomology.....	8
20	CROP PROTECTION.....	8
	Diseases.....	9
	Arthropods.....	15
	Nematodes.....	17
	Weeds.....	18
	Other Pests.....	19
30	LIVESTOCK PROTECTION.....	19
	Diseases.....	20
	Arthropods.....	26
	Parasites.....	26
40	COMMODITY PROTECTION.....	28
	Storage Diseases.....	28
	Arthropods.....	28
	Rodents and Other Pests.....	28
	Microbial Contamination.....	28
50	ENVIRONMENTAL CONTAMINATION.....	28
55	RESIDUES.....	28
60	TOXICOLOGY.....	29
65	PLANT PHYSIOLOGY & BIOCHEMISTRY.....	*
70	CHEMISTRY.....	32
80	ENGINEERING.....	33
90	INDUSTRY.....	33
	Economics.....	33
	Education.....	*
	Regulations.....	33
SUBJECT INDEX.....		35
BIOGRAPHICAL INDEX.....		109
AUTHOR INDEX.....		119
ORGANIZATIONAL INDEX.....		123

*This issue does not contain citations under this category.

Note: Mention of a company name or a proprietary product does not necessarily imply endorsement by the U.S. Department of Agriculture, NATIONAL AGRICULTURAL LIBRARY, PESTICIDES INFORMATION CENTER.



ENTOMOLOGY

17731-68
PARASITIC AND FREE-LIVING CYCLES IN ENTOMOGENOUS NEMATODES OF THE GENUS DELADENUS.

R A Bedding
Nature 214(5084):174-175
08 Apr 1967 472 N21

Deladenus, Insect morphology, Life cycle, Parasitism, Sirex noctilio.

17732-68
THE FORAGING BEHAVIOR OF HONEYBEES (APIS MELLIFERA) AND BUMBLEBEES (BOMBUS SPP.) ON BLACKCURRANT (RIBES NIGRUM), RASPBERRY (RUBUS IDAEUS) AND STRAWBERRY (FRAGARIA X ANANASSA) FLOWERS.

J B Free
J Appl Ecol 5(1):157-168 REF
Apr 1968 410 J828

Apis mellifera, Bombus, Insect behavior, Pollination, Population statistics, Raspberries, Research, Ribes nigrum, Strawberries.

17733-68
SIMPLE FIELD AND LABORATORY METHOD FOR RECOVERING LIVING TICKS (IXODOIDEA) FROM HOSTS.

M N Kaiser H Hoogstraal
J Parasitol 54(1):188-189
Feb 1968 448.8 J824

Insect cages, Ixodides, Ixodoidea, Microbiology, Parasitism.

17734-68
AN IMPROVED INCUBATOR FOR INSECTS FOR OPERATION ABOVE ROOM TEMPERATURE AND RELATIVE HUMIDITY.

C F Nicholls E E Grills
J Econ Entomol 61(5):1142-1145
15 Oct 1968 421 J822

Equipment, Humidity, Incubators, Insects, Research, Temperature.

17735-68
THE MULTIPLICATION OF MIDDELBURGS AND I PLAQUE VIRUSES IN AEDES AEGYPTI MOSQUITOES.

S R Pattxn L Vleschauer
Acta Virol 12(4):347
Jul 1968 448.3 AC85

Aedes aegypti, Culture media, Middelburg virus, Research, Virus diseases (insects).

17736-68
CATCH OF INSECTS AT DIFFERENT HEIGHTS IN TRAPS EQUIPPED WITH BLACKLIGHT LAMPS.

P A Stewart J J Lam
J Econ Entomol 61(5):1227-1230
15 Oct 1968 421 J822

Insect collecting equipment, Insect flight, Insect traps, Light traps, Manduca quinquemaculata, Manduca sexta, Research, Tobacco.

SYSTEMATICS

17737-68
A NEW SPECIES OF HARPACTEA FROM THE PONTINE ISLANDS (ARANEAE, DYSDERIDAE). (IT)

P Alicata
Fragmenta Entomol 4(8):113-115
30 Dec 1966 421 F84

Insect taxonomy, Spiders. Consiglio nazionale delle ricerche

17738-68
NEW INDIAN THYSANOPTERA.

T N Ananthakrishnan
Soc Entomol France Ann 3(1):227-237
1967 420 F84

Insect taxonomy, Thysanoptera. French summary

17739-68
NEW DATA CONCERNING THE ANT GENUS CAMPONOTUS (HYMENOPTERA, FORMICIDAE) FROM THE USSR FAUNA. (RUS)

K V Arnoldi
Zool Zhur 46(12):1815-1831 REF
Dec 1967 410 R92
Camponotus, Formicidae, Insect taxonomy. German abstract

17740-68
ON A TENTH NEW SPHAEROCERASPIS OF THE CENTRAL AFRICAN FOREST (HOM. COCCOIDEA DIASPIDINI). (FR)

A S Balachowsky D Ferrero
Soc Entomol France Ann 11(2):343-348
1966 420 F84

Coccoidea, Forests, Habitats, Insect ecology, Insect taxonomy.

Abstract

17741-68
NOTES ON THE CHOROLOGY AND ECOLOGY OF ARANEIDAE FROM THE ALBAN HILLS (ARANEAE). (IT)

P M Brignoli
Fragmenta Entomol 4(8):125-140 REF
30 Dec 1966 421 F84

Insect ecology, Insect taxonomy, Spiders, Zoogeography. English and Italian summaries

Abstract

17742-68
NEOTROPICAL MIRIDS, XCVIII: THREE NEW SPECIES OF THE TRIBES BRYOCORINI AND ORTHOTYLINI (HEMPTERA). (POR)

J C M Carvalho A V Fontes
Rev Brasil Biol 27(3):315-320
Oct 1967 442.8 R326

Insect taxonomy, Miridae. English summary

Abstract

17743-68
BIOLOGICAL AND ECOLOGICAL STUDIES ON CALOGLYPHUS MITE (ACARINAI ACARIDAE) ASSOCIATED WITH SCARABAEIDAE.

W Chmielewski J J Lipa
Acta Parasitol Polon 14(15-27):179-186
1966 436.8 AC8
Ecology, Insect biology, Mites, Phoresy, Scarabaeidae. English and polish abstract

Abstract

17744-68
A REVISION OF THE ORIENTAL SPECIES OF PALEXORISTA TOWNSEND (DIPTERA: TACHINIDAE, STURMIINI).

R W Crosskey
Brit Mus (natur Hist) Entomol Bull Suppl 21(2):37-97 REF
1967 420 B773

Insect identification, Insect morphology, Insect taxonomy, Palexorista, Tachinidae, Zoogeography.

17745-68
ERIGONIDS FROM THE PONTINE ISLANDS (ARANEAE ERIGONIDAE). (IT)

J Denis
Fragmenta Entomol 4(8):117-124
30 Dec 1966 421 F84

Insect taxonomy, Spiders. English and Italian summaries

Abstract

17746-68
LARVAE OF CLICK BEETLES OF THE GENUS IDOLUS DESBR. AND POSITION OF THIS GENUS IN THE SYSTEM ELATERIDAE (COLEPTERA). (RUS)

V G Dolin
Zool Zhur 46(12):1860-1863
Dec 1967 410 R92

Elateridae, Insect taxonomy, Larvae.

Abstract

17747-68
SUBTERRANEAN TERMITE STUDIES IN SOUTHERN ONTARIO.

G R Esenther D E Gray
Can Entomol 100(8):827-834
Aug 1968 421 C16
Baits, Chemical control (insects), Insecticides, Lenites trabea, Mirex, Research, Termites.

17748-68
INSECTS AFFECTING SEED PRODUCTION OF SHORTLEAF PINE IN THE GEORGIA PIEDMONT.

R T Franklin R N Coulson
Can Entomol 100(8):807-812 REF
Aug 1968 421 C16
Diptera, Forest seed production, Georgia, Insects, Lepidoptera, Light traps, Pinus echinata.

17749-68
NEW ZEALAND NOCTUIDAE (LEPIDOPTERA): SUMMARY OF KNOWN HOST PLANTS AND A BIBLIOGRAPHY RELEVANT TO THE BIOLOGY OF THE GROUP.

D E Gaskin
New Zeal Entomol 3(5):19-27 REF
Dec 1966 421 N48
Economics, Indexing, Insect identification, Insect pests, Noctuidae.

17750-68
ON DIPTERA IN SMALL MAMMAL BURROWS IN NORTHERN EUROPE AND SOUTHERN SPAIN.

W Hackman
Notulae Entomol 47(1):1-14
1967 421 N84
Diptera, Habitats, Rodents, Symbiosis, Tunnels.

17751-68
NOTES ON MEGALYRIDAE (HYM. ICHNEUMONOIDEA) AND DESCRIPTION OF NEW SPECIES FROM MADAGASCAR.

K-j Hedqvist
Soc Entomol France Ann 3(1):239-246
1967 420 F84
Insect taxonomy, Megalyridae, Parasitic insects. French summary

17752-68
TWO NEW SPECIES OF THYASIDAE (ACARINA) FROM NIKKO NATIONAL PARK JAPAN.

T Imamura R Mitchell
Annot Zool Jap 40(3):171-176 REF
Sep 1967 410 AN79
Japonothis, Mites, Panisopsis, Taxonomy.

Abstract: Japonothis ornatus, n. g., n. sp., and Panisopsis orientalis, n. sp. are described. They show close affinities with common, cool-water Holarctic mites.

17753-68
THE COMPOSITION OF THE THRIPS SPECIES IN CEREALS IN FINLAND.

P Koppa
Ann Agr Fenn 6(1):30-44 REF
1967 20 AN7

Grain, Thysanoptera.

Abstract

17754-68
A CONTRIBUTION TO THE ECOLOGY OF THE MAY-FLY PALINGENIA SUBLONGICAUDA TSHERN. IN THE VOLGA DELTA. (RUS)

A A Kosova
Zool Zhur 46(12):1856-1859
Dec 1967 410 R92

Ephemeroptera, Insect ecology.

Abstract

17755-68
A NEW GENUS AND TWO NEW SPECIES OF MIRID BUGS (HETEROPTERA, MIRIDAE) FROM THE EASTERN REGIONS OF THE USSR. (rus)

S A Kulik

ENTOMOLOGY

17756-68

Zool Zhur 47(1):140-142
Jan 1968 410 R92
Insect taxonomy, Miridae, Salix, Ulmus. English abstract
Abstract

17756-68
NEW SPECIES OF CULEX (MELANOCONION). (POR)
M Q de Linero
Rev Brasil Biol 27(3):289-291
Oct 1967 442.8 R326
Culex, Insect taxonomy, Zoogeography.

17757-68
A NEW GENUS AND SPECIES OF THE PHYTOPHAGOUS MITE (BRYOBIIDAE, ACARIFORMES). (RUS)
I S Livshitz V I Mitrofanov
Zool Zhur 46(12):1850-1852
Dec 1967 410 R92
Cistus, Insect taxonomy, Mites, Tetranychidae.
Abstract

17758-68
ON MORPHOLOGY OF LARVAE OF THE III INSTAR IN SYNANTHROPIC SPECIES OF FLIES FROM THE GENUS HYDROTAEA R.D. (DIPTERA, MUSCIDAE). (RUS)
A M Lobanov
Zool Zhur 47(1):85-90
Jan 1968 410 R92
Insect identification, Insect morphology, Insect taxonomy, Larvae, Muscidae. English and russian abstract
Abstract

17759-68
ON LARVAE OF HISPINAE (COLEOPTERA, CURYOMELIDAE) OF THE FAUNA OF THE USSR. (rus)
L N Medvedev
Zool Zhur 47(1):79-84
Jan 1968 410 R92
Chrysomelidae, Insect identification, Insect taxonomy, Larvae, Pupae. English and russian abstract
Abstract

17760-68
FLEAS (SIPHONAPTERA) NEW TO NORWAY.
R Mehl
Norsk Entomol Tidsskr 14(1):60-62
1967 421 N812
Siphonaptera, Taxonomy, Zoogeography.

Abstract: Species mentioned: Doratopsylla d. dasycnema, Paraceras m. melis, Dasypsyllus g. galinulae, Megabothris turbidus, Megabothris walckeri, Ceratophyllus delichoni Ceratophyllus l. lunatus, Ceratophyllus borealis.

17761-68
HABITAT SELECTION BY LIPARA LUCENS MG. (DIPTERA, CHLOROPIDAE) AND ITS SURVIVAL VALUE.
J H Mook
Arch Neer Zool 17(4):469-549 MAP, REF
Dec 1967 410 R927

Chloropidae, Insect behavior, Insect biology, Insect ecology, Lipara lucens, Oviposition, Zoogeography.

17762-68
INFORMATION CONCERNING THE AFRICAN BARK AND NUT BEETLES FAUNA (COLEOPTERA SCOLYTIDAE AND PLATYPODIDAE). (GE)
M Nunberg

Rev Zool Bot Afr 76(3):313-340 REF
30 Dec 1967 410 R326
Ecology, Environment, Platypodidae, Research, Scolytidae.

17763-68
NOTES ON RAISING LEPIDOPTERA IN MEURTHE AND MOSELLE. (FR)
G Oligier

BIBLIOGRAPHY

Alexandor 5(2):49-52
1967 421 AL2
Environment, Geography, Insect ecology, Insect rearing, Larvae, Lepidoptera.

17764-68
HEMIPTERA ASSOCIATED WITH PIG CARRION.
J A Payne F W Mead E W King
Entomol Soc Amer Ann 61(3):565-567 REF
May 1968 420 EN82
Carcasses, Hemiptera, Larvae, Predaceous insects, Research, Swine.

17765-68
REPRODUCTION OF SOME POORLY KNOWN SPECIES OF BLATTARIA.
L M Roth
Entomol Soc Amer Ann 61(3):571-579 REF
May 1968 420 EN82
Blaberidae, Blaberus discoidalis, Eublaberus distantii, Eublaberus posticus, Insect anatomy, Insect rearing, Phortioeca phoraspoides, Starvation.

17766-68
FURTHER STUDIES ON THE EFFECT OF BOVINE DIET ON FACE FLY DEVELOPMENT.
N S Ruprah R E Treece
J Econ Entomol 61(5):1147-1150
15 Oct 1968 421 J822
Cattle, Diet, Feces, Insect morphology, Insect rearing, Larvae, Musca autumnalis, Ovulation, Research.

17767-68
CIRCADIAN EMERGENCE RHYTHM OF A TROPICAL SCOLYTID, XYLEBORUS FERRUGINEUS.
J L Saunders J K Knock
Entomol Soc Amer Ann 61(3):587-590
May 1968 420 EN82
Cacao, Diurnal rhythm, Insect control, Light, Research, Temperature, Xyleborus ferrugineus.

17768-68
ON THE DISTRIBUTION OF IXODES AN-GUSTUS NEUM.(IXODIDAE). (RUS)
B P Savitzky E V Okuntzova
Zool Zhur 46(12):1849-1850
Dec 1967 410 R92
Insect ecology, Ixodids, Rodents, Surveys, Zoogeography.
Abstract

17769-68
A NEW SPECIES OF THE GAMASID MITE ICHORONYSSUS MIRABILIS SENOTRUSOVA ET TAGILTSEV SP. N. (ACARIFORMES, GAMASOIDEA) FROM WHISKERED MILLERS OF THE ZAISAN HOLLOW. (RUS)
V N Senotrusova A A Tagiltsev
Zool Zhur 47(1):134-136
Jan 1968 410 R92
Epidemiology, Gamasides, Ichoronyssus, Insect taxonomy, Mites. English abstract
Abstract

17770-68
A REVIEW OF RECENT LITERATURE ON THE HOST PLANT RANGE OF THE GENUS LIRIOMYZA MIK (DIPTERA: AGROMYZIDAE) IN THE CONTINENTAL UNITED STATES AND HAWAII, EXCLUDING ALASKA.
C E Stegmaier
Flu Entomol 51(3):167-182 REF
Sep 1968 420 F662
Geography, Insect dissemination, Liriomyza, Literature, Morphology, Research. Names of other species are in abstract.

17771-68
THE GENERA OF AFRICAN LYCAENIDAE (LEPIDOPTERA: RHOPALOCERA).
H Stempffer
Brit Mus (natur Hist) Entomol Bull Suppl 00(10,SUP):3-322
1967 420 B773
Insect morphology, Insect taxonomy, Lycaenidae.

17772-68
A PRELIMINARY REPORT OF THE MOSQUITOES IN THE GILGIT AGENCY AREA.
Z K Tariq
Pakistan J Sci 19(1-2):47-56 REF
Jan 1967 475 P172
Altitude, Culicidae, Insect ecology, Insect taxonomy, Malaria, Zoogeography.
Abstract

17773-68
A DESCRIPTION OF THE PUPA OF THE PALES WEEVIL, HYLOBIUS PALES, AND A METHOD FOR IDENTIFYING ITS SEX.
H A Thomas
Can Entomol 100(4):434-437
Apr 1968 421 C16
Hylobius pales, Insect identification, Insect taxonomy, Pachylobius picivorus, Pupae, Sex.

17774-68
CONTRIBUTION TO THE STUDY OF THE GENERA STIZOCERA SERV., 1834. BRAZILIAN SPECIES (COLEOPTERA, CERAMBYCIDAE). (POR)
D Zajciw
Rev Brasil Biol 27(3):293-314 REF
Oct 1967 442.8 R326
Cerambycidae, Insect taxonomy, Zoogeography.

17775-68
A PRODROME OF THE GENUS ORTHOPODOMYIA (DIPTERA, CULICIDAE).
T J Zavortink
Diss Abstr Sect B 28(11):4610B
May 1968 Z5055.U49D53
Entomology, Insect morphology, Insect taxonomy, Orthopodomyia, Prodrone, Temperature, Zoogeography.

17776-68
SIPHONA KANGWAGYEI N. SP., A BLOOD SUCKING FLY FROM UGANDA (DIPTERA: MUSCIDAE).
F Zumpt
Novos Taxa Entomol 52:3-4
Jul 1967 421 N853
Diptera, Entomology, Insect identification, Insect taxonomy, Siphona kangwagyei, Zoogeography.

PHYSIOLOGY AND BIOCHEMISTRY

17777-68
ACTIVATION OF MALATHION BY THE LOCUST BODYWALL.
H Ahmed B G Gardiner
Nature 217(5130):776-777
24 Feb 1968 472 N21
Insect physiology, Malathion, Mortality, Schistocerca gregaria, Toxicology.

17778-68
SOME OBSERVATIONS ON COMPULSORY FEEDING OF SANDFLIES (DIPTERA, PHLEBOTOMINAE) WITH THE CULTURE OF LEPTOMONADS. (RUS)
A N Alexeev V M Safianova
Zool Zhur 47(1):91-98
Jan 1968 410 R92
Feeding, Insect nutrition, Phlebotomus, Psychodidae. English and russian abstract
Abstract

17779-68
INVESTIGATIONS ON THE HELIOTHIS NUCLEAR POLYHEDROSIS VIRUS AND ITS DEVELOPMENT AS A BIOLOGICAL CONTROL AGENT.
G E Allen
Diss Abstr Sect B 29(2):644B
Aug 1968 Z5055.U49D53
Biological control (insects), Cell nucleus, Heliopsis, Polyhedroses, Research, Virus diseases (animals).

- 17780-68**
THE LEAF CUTTING ANT, ATTA CAPIGUARA, CURSE OF THE PASTURES. (POR)
E Amante
Biologico 33(6):113-120
Jun 1967 442.8 B529
Atta, Insect behavior, Insect control, Insect morphology, Social insects, Zoogeography.
- 17781-68**
STUDIES ON SELECTION IN NATURAL AND EXPERIMENTAL POPULATIONS OF DROSOPHILA PSEUDOOSCURA.
W W Anderson
Diss Abstr Sect B 29(1):55B
Jul 1968 Z5055.U49D53
Antigens, Chromosomes, Drosophila pseudoobscura, Genes, Immunology, Insect evolution, Insect genetics, Mice, Neoplasms, Population, Research.
- 17782-68**
ANALYSIS OF THE DEVELOPMENT OF OVIDUCTS AND THE DEVELOPMENTAL RELATIONS BETWEEN OVIDUCTS AND OVARIES IN DROSOPHILA VIRILIS. PART ONE: DEVELOPMENT OF OVIDUCTS UNDER NORMAL AND EXPERIMENTAL CONDITIONS. PART TWO: ANALYSIS OF ALTERATIONS OCCURRING IN OVIDUCTS DURING IMAGINAL LIFE.
M B Babcock
Diss Abstr Sect B 28(11):4799B
May 1968 Z5055.U49D53
Animals, Assay, Drosophila virilis, Insect morphology, Ovaries, Oviducts, Reproductive organs, Transplanting.
- 17783-68**
BIONOMICS OF THE MOSQUITO ANOPHELES FRANCISCANUS MCCracken IN CALIFORNIA.
D C Baerg
Diss Abstr Sect B 28(11):4608B
May 1968 Z5055.U49D53
Algae, Anopheles franciscanus, Breeding, Experimental insects, Hydrogen-ion concentration, Insect ecology, Insect physiology, Insect rearing, Temperature, Water.
- 17784-68**
SPIDER POPULATIONS IN GRAIN SORGHUMS.
C L Bailey H L Chada
Entomol Soc Amer Ann 61(3):567-571
May 1968 420 EN82
Economic plants, Feeding, Insect control, Laboratories, Population statistics, Research, Sorghum, Spiders.
- 17785-68**
ORGANOTHIOCYANATES AS INSECTICIDES AND CARBAMATE SYNERGISTS.
N Bakry R L Metcalf T R Fukuto
J Econ Entomol 61(5):1303-1308 REF
15 Oct 1968 421 J822
Biochemistry, Carbamates, Carbaryl, Chemical control (insects), Insecticides, Musca domestica, Organic compounds, Tables (data).
- 17786-68**
PHOTOINHIBITORY FUNCTION OF THE DORSAL OCELLI IN THE PHOTOTACTIC REACTION OF THE MIGRATORY LOCUST LOCUSTA MIGRATORIA L.
C K Barry R Jander
Nature 217(5129):675-677 REF
17 Feb 1968 472 N21
Experimental insects, Eyes, Insect physiology, Locusta migratoria, Photoperiodism, Photosensitization, Phototropism, Research.
- 17787-68**
ONCOGENESIS IN THE (TU) Y2V:VG STRAIN OF DROSOPHILA MELANOGASTER.
M A Benjaminson
Diss Abstr Sect B 29(1):56B
Jul 1968 Z5055.U49D53
Chromosomes, Drosophila melanogaster, Genes, Hereditary diseases, Insect diseases, Oncogenic viruses, Temperature.
- 17788-68**
EFFECTS OF JUVENILE HORMONE ON PROTEIN SYNTHESIS DURING THE METAMORPHOSIS OF THE POLYPHEMUS SILKMOTH.
M Blumenfeld
Diss Abstr Sect B 29(2):481B-482B
Aug 1968 Z5055.U49D53
Antheraea polyphemus, Hormones, Insect morphology, Metamorphosis, Proteins.
- 17789-68**
SEX RATIO IN PUPAE OF THE YELLOW-STRIPED ARMYWORM.
D G Bottrell
J Econ Entomol 61(5):1470-1471
15 Oct 1968 421 J822
Experimental insects, Prodenia ornithogalli, Pupae, Research, Sex.
- 17790-68**
FIELD STUDIES OF SEX ATTRACTION IN THE BOLL WEEVIL.
J R Bradley D F Clower J B Graves
J Econ Entomol 61(5):1457-1458
15 Oct 1968 421 J822
Anthonomus grandis, Experimental insects, Insect behavior, Insect traps, Pheromones, Research, Sex attractants.
- 17791-68**
STUDIES OF CASTE DIFFERENTIATION IN MYRMICA RUBRA L. 9. MATERNAL ENVIRONMENT AND THE CASTE BIAS OF LARVAE.
M V Brian A F Kelly
Insectes Sociaux 14(1):13-24
Mar 1967 421 IN79
Environment, Insect biology, Insect eggs, Larvae, Metamorphosis, Myrmica rubra, Photoperiodism, Temperature. Italian and French summaries
- 17792-68**
NOTES ON MICROANALYTICAL TECHNIQUES IN THE ANALYSIS OF FOODS FOR EXTRANEOUS MATERIALS.
P M Brickey J S Gecan J J Thrasher W V Eisenberg
Ass Offic Anal Chem J 51(4):872-876
Jul 1968 381 AS7
Autoclaves, Color, Entomology, Ethylenediaminetetraacetic acid, Food, Laboratories, Microbiology, Polyethylene, Sampling (statistics), Tissues.
- 17793-68**
MECHANISM OF LOCUST JUMPING.
R H J Brown
Nature 214(5091):939
27 May 1967 472 N21
Acrididae, Experimental insects, Insect anatomy, Insect physiology, Locomotion, Motion pictures, Muscles, Research.
- 17794-68**
LABORATORY PROPAGATION OF MUSCIDIFURAX RAPTOR ON FACE FLY PUPAE.
R P Burton E C Turner
J Econ Entomol 61(5):1380-1383 REF
15 Oct 1968 421 J822
Experimental insects, Insect rearing, Musca autumnalis, Muscidifurax raptor, Ovulation, Parasitic insects, Pupae.
- 17795-68**
THE INFECTION OF BOOPHILUS MICROPLUS WITH BABESIA BIGEMINA.
L L Callow
Parasitology 58(3):663-670
Aug 1968 448.8 P21
Babesia bigemina, Biological control (insects), Boophilus microplus, Helminthiasis, Insect morphology, Ixodidae, Parasitism, Research.
- 17796-68**
SELECTIVE RECOVERY OF VOLATILE PRODUCTS FROM HOUSE FLIES TREATED WITH RADIOACTIVE INSECTICIDE CHEMICALS AND SYNERGISTS.
J E Casida S P Shrivastava E G Esaac
J Econ Entomol 61(5):1339-1344 REF
15 Oct 1968 421 J822
Carbon dioxide, Carbon isotopes, Experimental insects, Injections, Insecticides, Metabolism, Musca domestica, Organic compounds, Radioactivity, Research.
- 17797-68**
CHEMICAL STERILIZATION OF THE STABLE FLY STOMOXYS CALCITRANS (LINNE), WITH METEPA AND HEMPA.
J J Castro Umana
Diss Abstr Sect B 29(1):225B
Jul 1968 Z5055.U49D53
Biochemistry, Chemical control (insects), Chemosterilants, Experimental insects, Hempa, Insect cages, Metepa, Research, Stomoxys calcitrans.
- 17798-68**
METABOLISM OF C14-LABELED HEMEL IN MALE HOUSE FLIES.
S C Chang A B DeMilo C W Woods A B Borkovec
J Econ Entomol 61(5):1357-1365
15 Oct 1968 421 J822
Biochemistry, Biological control (insects), Carbon isotopes, Chemosterilants, Hemel, Injections, Metabolism, Metabolites, Musca domestica.
- 17799-68**
CONTENT AND SYNTHESIS OF GAMMA AMINOBUTYRIC ACID IN THE LARVAL BRAIN OF DROSOPHILA MELANOGASTER.
P S Chen B Widmer
Experientia 24(5):516-517
15 May 1968 475 EX7
Amino acids, Brain, Drosophila melanogaster, Insect biochemistry, Nervous system. German abstract
- 17800-68**
COMPARATIVE TOXICITY (MAMMALIA, INSECTA, ACARINA) OF RECENT S,S-DIMETHYL S-BENZYL DERIVATIVES SUBSTITUTED FOR TRI- AND TETRATHIOPHOSPHORIC ACIDS. (FR)
J Cheymol P Chabrier T N Thanh A Thizy D Demozay D Pillon
Acad Sci Compt Rend Ser D Sci Nat 264(22):2597-2599
29 May 1967 505 P21
Acarina, Insects, Mammals, Phosphoric acid esters, Toxicology.
- 17801-68**
ECOLOGY OF INSECT SWARMS. V. MOVEMENT OF INDIVIDUAL MIDGES, ANARETE PRITCHARDI, WITHIN A SWARM.
H C Chiang
Entomol Soc Amer Ann 61(3):584-587
May 1968 420 EN82
Anarete pritchardi, Cecidomyiidae, Insect flight.
- 17802-68**
TEMPERATURE RELATIONSHIPS OF THE DEVELOPMENT OF NORTHERN CORN ROOTWORM EGGS.
H C Chiang V Sisson
J Econ Entomol 61(5):1406-1410
15 Oct 1968 421 J822
Diabrotica longicornis, Experimental insects, Insect eggs, Insect pests, Research, Soil temperature, Tables (data), Temperature, Time.
- 17803-68**
ACCUMULATION OF GLYCINE IN THE FAT BODY OF THE SILKWORM, BOMBYX MORI L.
C Chitra M B Shyamala
Nature 216(5113):386-387
28 Oct 1967 472 N21

17804-68

Absorption, Amino acids, Bombyx mori, Culture media, Fat body, Glycine, Intestines, Kinetin, Proteins, Radioactivity, Research, Tissues.

17804-68

A COMPARATIVE STUDY OF SALIVARY GLAND CHROMOSOME ASYNAPSIS IN TUMORIGENIC AND CLOSELY RELATED NON-TUMORIGENIC STRAINS OF DROSOPHILA MELANOGASTER.

S E Cohen

Diss Abstr Sect B 28(11):4429B

May 1968 Z5055.U49D53

Chromosomes, Drosophila melanogaster, Insect cultures, Insect ecology, Insect genetics, Insect physiology, Larvae, Research, Salivary glands (insects).

17805-68

LATEST RESEARCH PLANS ON THE PROBLEM OF COCKROACH RESISTANCE.

W J Collins

Pest Contr 36(6):23-25-26

Jun 1968 449.8 EX8

Blattella germanica, Insect rearing, Insecticide resistant insects.

17806-68

ALATE APIIID SPECIES CAPTURED IN YELLOW PANS.

B F Coon J O Pepper

J Econ Entomol 61(5):1472-1473

15 Oct 1968 421 J822

Aphididae, Insect collecting equipment, Insect traps, Population, Research.

17807-68

POLYGENIC CONTROL OF ALDEHYDE OXIDASE AND XANTHINE DEHYDROGENASE IN DROSOPHILA.

J B Courtright

Diss Abstr Sect B 29(2):483B

Aug 1968 Z5055.U49D53

Aldehyde oxidase, Biochemistry, Drosophilidae, Insect physiology, Xanthine dehydrogenase.

17808-68

ON THE BIOLOGY OF SEVERAL TRECHINAE AND SPHODRINAE. (INSECTA, COLEOPTERA). (FR)

S Deleuranee

Acad Sci Compt Rend Ser D Sci Nat 263(23):1817-1819

06 Dec 1967 505 P21

Coleoptera, Insect morphology, Insect physiology, Ovaries.

17809-68

THE FORMATION OF THE CUTICULAR RIDGES IN THE LARVAL PHARYNX OF THE BLOWFLY (CALLIPHORA VICINA R.-D.).

V M Dowding

Parasitology 58(3):683-689

Aug 1968 448.8 P21

Calliphora vicina, Cuticle, Cytoplasm, Electron microscopy, Insect physiology, Insect rearing, Larvae, Methodology, Pharynx.

17810-68

CORRECTION COEFFICIENTS FOR PROGNOSING THE DEVELOPMENT OF INSECTS BY SUMS OF EFFECTIVE TEMPERATURES (AGROTIS SEGETUM SCHIFF TAKING OF EXAMPLE). (RUS)

T S Druzhelyubova I. A Makarova

Zool Zhur 47(1):73-78 REF

Jan 1968 410 R92

Agrotis segetum, Insect physiology, Noctuidae, Statistical methods, Temperature. English and russian abstract

Abstract

17811-68

TESTS OF GENETIC SYSTEMS FOR THE STUDY OF THE EFFECTS OF DNA IN DROSOPHILA MELANOGASTER.

W F Duggleby

Diss Abstr Sect B 29(1):58B-59B

Jul 1968 Z5055.U49D53

Deoxyribonucleic acid, Drosophila melanogaster, Insect genetics, Research.

17812-68

STUDIES ON THE BIOLOGICAL PROPERTIES OF TOXOPLASMA GONDII IN THE BODY OF INSECTS, USING PEDICULUS HUMANUS L. AS TEST ANIMALS.

J Dutkiewicz

Acta Parasitol Polon 14(15-27):187-200 REF

30 Jun 1966 436.8 AC8

Histology, Insect vectors, Pediculus humanus, Toxoplasmosis. Polish and english abstract

Abstract

17813-68

STUDIES ON THE MORPHOLOGY AND BIOLOGY OF LECANIUM FLETCHERI CKLL. (HOMOPTERA, COCCOIDEA) AND RELATED SPECIES.

A Dziedzicka

Zool Pol 18(1):125-165 REF

1968 410 Z712

Entomology, Insect biology, Insect identification, Insect morphology, Lecanium fletcheri, Parasitism, Research, Zoogeography. Russian and Polish summaries

17814-68

INFLUENCE OF REPELLENCY ON THE EFFICACY OF BLATTICIDES. IV. COMPARISON OF FOUR COCKROACH SPECIES.

W Ebeling D A Reiersen R E Wagner

J Econ Entomol 61(5):1213-1219

15 Oct 1968 421 J822

Biochemistry, Blatta orientalis, Blattella germanica, Chemical control (insects), Experimental insects, Insect repellents, Insecticides, Periplaneta americana, Research, Supella supellectilium.

17815-68

ELECTROPHORETIC VARIATION OF PROTEINASE IN THE DIGESTIVE JUICE OF THE SILKWORM, BOMBYX MORI L.

M Eguchi N Yoshitake

Nature 214(5090):843-844

20 May 1967 472 N21

Bombyx mori, Breeding, Digestion, Electrophoresis, Enzymes, Genes, Insect genetics, Polymorphism, Proteinases, Secretion.

17816-68

DEFENSE MECHANISMS OF ARTHROPODS. XXI. FORMIC ACID AND N-NONYL ACETATE IN THE DEFENSIVE SPRAY OF TWO SPECIES OF HELLUOMORPHOIDS.

T Eisner Y C Meinwald D W Alsop J E Carrel

Entomol Soc Amer Ann 61(3):610-613 REF

May 1968 420 EN82

Arthropoda, Carabidae, Formic acid, Glands (insects), Nonyl acetate, n-, Secretion, Spraying.

17817-68

ECOLOGICAL CHARACTERISTICS OF THE DIAPAUSE OF THE PHYTONOME OF THE LUZERNE HYPERA VARIABILIS. (COL. CURCULIONIDAE). (FR)

K El M'Saddia

Soc Entomol France Ann 4(2):339-348 REF

1968 420 F84

Curculionidae, Diapause, Hypera postica, Insect ecology, Photoperiodism, Temperature. French and English summaries

Abstract

17818-68

SOME EFFECTS OF GAMMA RADIATION ON THE TOBACCO BUDWORM HELIOTHIS VIRESCENS (FABRICIUS).

E S I El-Sayed

Diss Abstr Sect B 29(2):644B-645B

Aug 1968 Z5055.U49D53

Gamma rays, Heliothis virescens, Insect physiology, Irradiation, Tobacco.

17819-68

A SIMPLIFIED FIELD CAGE FOR TRAPPING PINK BULLWORM ADULTS.

J J Ellington J F Norris J Durkin

J Econ Entomol 61(5):1468-1469

15 Oct 1968 421 J822

Cultural control (insects), Insect cages, Insect collecting equipment, Insect traps, Pectinophora gossypiella.

17820-68

MECHANICAL AND ELECTRICAL ACTIVITY IN THE INDIRECT FLIGHT MUSCLES OF THE HONEY BEE.

H Esch J Bastian

Z Vergleichende Physiol 58(3):429-440 REF

1968 444.8 Z3

Apis mellifera, Electrodes, Insect dissemination, Insect flight, Insect physiology, Muscles, Potentiometry, Temperature, Wings (insects).

17821-68

NOTES ON DEATHWATCH BEETLES (COLEOPTERA). (SP)

F Espanol

Eos 43(1-2):27-56 REF

15 Nov 1967 421 EO7

Anobiidae, Entomology, Insect adaptation, Insect morphology, Insect taxonomy.

17822-68

PRELIMINARY EVALUATION OF A GRANULOSIS VIRUS FOR CONTROL OF THE CODLING MOTH.

L A Faleon N R Kane R S Bethel

J Econ Entomol 61(5):1208-1213 REF

15 Oct 1968 421 J822

Biological control (insects), Carpocapsa pomonella, Granulosis, Insect diseases, Insect pests, Insect rearing, Integrated control (insects), Larvae, Mortality, Research.

17823-68

DIFFERENCE IN RESPONSE OF TWO STRAINS OF SCREW-WORM FLIES TO THE MALE PHEROMONE.

L W Fletcher H V Claborn J P Turner E Lopez

J Econ Entomol 61(5):1386-1388

15 Oct 1968 421 J822

Breeding, Cochliomyia hominivorax, Experimental insects, Insect rearing, Pheromones, Tables (data).

17824-68

SPREAD OF THE BOLL WEEVIL BY DRAINAGE WATER AND AIR CURRENTS.

R E Fye

J Econ Entomol 61(5):1418-1424 REF

15 Oct 1968 421 J822

Air flow, Anthonomus grandis thurberiae, Cotton, Drainage, Experimental insects, Insect dissemination, Leaves, Research, Velocity, Water.

17825-68

THE PHYLOGENETIC DEVELOPMENT OF FOOD SELECTION IN CERTAIN ORTHOPTEROIDS.

S K Gangwere

Eos 42(0):383-391 REF

28 Feb 1967 421 EO7

Entomology, Feeding, Food habits, Food plants, Food supply, Insect behavior, Insect genetics, Orthoptera.

17826-68

BITING IN ORTHOPTERA AND THEIR ALLIES.

S K Gangwere

Eos 42(0):363-382

28 Feb 1967 421 EO7

Entomology, Feeding, Insect behavior, Insect physiology, Mandibular glands, Orthoptera.

17827-68

STUDIES ON INSECT (PERIPLANETA AMERICANA L.) PHOSPHOFRUCTOKINASE.

A Grasso G M Natalizi

Compar Biochem Physiol 26(3):979-984 REF

Sep 1968 444.8 C73

Biochemistry, Enzymes, Glycolysis, Insect physiology, Kinases, Periplaneta americana.

Abstract

- 17828-68**
A SEX PHEROMONE FROM THE CITRUS MEALYBUG.
 N Gravit C Willson
J Econ Entomol 61(5):1458-1459
 15 Oct 1968 421 J822
 Biological assay, Citrus, Insect pests, Insect physiology, Pheromones, Planococcus citri, Research, Sex.
- 17829-68**
NEW TECHNIQUES TO BIOASSAY THE SEX ATTRACTANT OF PINK BOLLWORMS WITH OLFACTOMETERS.
 A A Guerra
J Econ Entomol 61(5):1252-1254
 15 Oct 1968 421 J822
 Abdomen, Attractants, Baits, Biological assay, Extracts, Methodology, Olfactometers, Pectinophora gossypiella, Sex attractants, Tables (data).
- 17830-68**
THE MOLTING BEHAVIOR OF THE BLACK WIDOW SPIDER, LATRODECTUS MACTANS.
 D W Hagstrum
Entomol Soc Amer Ann 61(3):591-593
 May 1968 420 EN82
 Cuticle, Insect behavior, Insect physiology, Latrodectus mactans, Molting (insects).
- 17831-68**
FIELD TESTS OF CHEMICALS FOR CONTROL OF THE EUROPEAN CORN BORER.
 J A Harding W G Lovely R C Dyar
J Econ Entomol 61(5):1427-1430
 15 Oct 1968 421 J822
 Biochemistry, Chemical control (insects), Experimental insects, Insect pests, Insecticides, Ostrinia nubilalis, Research, Tables (data).
- 17832-68**
METEOROLOGICAL FACTORS AFFECTING THE ACTIVITY OF NIGHT FLYING MACROLEPIDOPTERA.
 J Harling
Entomologist (london) 101(1259):83-93
 Apr 1968 421 EN8
 Arctiidae, Geometridae, Insect collecting equipment, Lepidoptera, Meteorology, Noctuidae, Notodontidae.
- 17833-68**
INFLUENCE OF THE SPECTRAL COMPOSITION OF CERTAIN BANDS OF VISIBLE AND NEAR VISIBLE RADIATION ON DIAPAUSE IN THE BOLL WEEVIL.
 F A Harris
Diss Abstr Sect B 29(2):645B
 Aug 1968 Z5055.U49D53
 Anthonomus grandis, Insect physiology, Radioactivity, Spectroscopy.
- 17834-68**
FIELD AND LABORATORY STUDIES ON THE ECOLOGY AND MORPHOLOGY OF NABIS AMERICOFERUS CARAYON AND ITS PARASITES IN CALIFORNIA.
 R D Hendrick
Diss Abstr Sect B 29(1):227B
 Jul 1968 Z5055.U49D53
 Experimental insects, Humidity, Insect ecology, Insect morphology, Insect physiology, Nabis americanus, Parasitism, Photoperiodism, Research, Temperature, Parasites mentioned were: Leucostoma simplex, Wesmaelia pendula, and Polynema sp.
- 17835-68**
ORDERED CHROMOSOMAL DNA SYNTHESIS IN DROSOPHILA MELANOGASTER.
 E F Howard
Diss Abstr Sect B 28(11):4431B
 May 1968 Z5055.U49D53
 Autoradiography, Cell nucleus, Chromosomes, Cytology, Deoxyribonucleic acid, Drosophila melanogaster, Metabolism, Salivary glands (insects), Sex.
- 17836-68**
REPRODUCTIVE BEHAVIOR OF THE POTATO TUBERWORM, PHTHORIMAEA OPERCULELLA (ZELLER), (LEPIDOPTERA: GELECHIIDAE) AND THE EFFECT OF THE CHEMOSTERILANT METEPA.
 I W Hughes
Diss Abstr Sect B 29(1):228B
 Jul 1968 Z5055.U49D53
 Biochemistry, Breeding, Chemical control (insects), Chemosterilants, Dosage, Insect anatomy, Insect behavior, Metepa, Pheromones, Phthorimaea operculella, Reproduction.
- 17837-68**
A STUDY OF THE NUCLEAR POLYHEDROSIS VIRUS ON THE BEET ARMYWORM, SPODOPTERA EXIGUA (HUBNER), WITH EMPHASIS ON STABILITY, PATHOGENICITY AND HISTOPATHOLOGY.
 D K Hunter
Diss Abstr Sect B 29(1):229B
 Jul 1968 Z5055.U49D53
 Biological assay, Diet, Electron microscopy, Experimental insects, Inclusion bodies, Insect diseases, Insect pests, Polyhedroses, Research, Spodoptera exigua, Temperature, Viruses.
- 17838-68**
DROSOPHILA ALCOHOL DEHYDROGENASE ISOZYMES: IDENTITY OF MOLECULAR SIZE.
 R B Imberski W H Sofer H Ursprung
Experientia 24(5):504-505
 15 May 1968 475 EX7
 Dehydrogenases, Drosophila, Electrophoresis, Insect biochemistry. German abstract
- 17839-68**
LARCH SAWFLY SURVIVAL IN RELATION TO WATER LEVELS AND MICROTOPOGRAPHY IN TAMARAK BOGS.
 W G H Ives
Can Entomol 100(4):373-385 REF
 Apr 1968 421 C16
 Bogs, Insect ecology, Microscopy, Pristiphora erichsonii, Pupal cases, Surveys, Topography, Zoogeography.
- 17840-68**
PARTHENOGENESIS IN GUM EMPEROR MOTH ANTERAEAE EUCALYPTI (SCOTT).
 C T Jessep
New Zeal Entomol 3(5):30
 Dec 1966 421 N48
 Antheraea eucalypti, Entomology, Experimental insects, Insect identification, Insect rearing, Parthenogenesis, Photography, Research.
- 17841-68**
DATA ON THE ENDOCRINE SYSTEM OF SEVERAL DIPLOPODA, ONISCOMORPHES (MYRIAPODA). (FR)
 L Juberthie-Jupeau
Acad Sci Compt Rend Ser D Sci Nat 265(20):1527-1529
 13 Nov 1967 505 P21
 Diplopoda, Endocrine glands, Esophagus, Glands (insects), Insect physiology, Secretion.
- 17842-68**
RESULTS CONCERNING HUMORAL IMMUNITY OF PYRRHOCORIS APTERUS L. AND GALLERIA MELLONELLA F. (GE)
 H Kamp
Z Vergleichende Physiol 58(3):441-464 REF
 1968 444.8 Z3
 Actinomycins, Bacteria, Biochemistry, Electrophoresis, Escherichia coli, Galleria mellonella, Immunity, Injections, Insect diseases, Muramidase, Proteins, Pseudomonas aeruginosa, Pyrrhocoris apterus, Serratia marcescens, Time, Tyrosine, Vaccines, Viruses. Summary in English
- 17843-68**
MEDIUM AND TECHNIQUES FOR MASS REARING THE RED-BANDED LEAF ROLLER.
 M A Karpel L E Hagmann
J Econ Entomol 61(5):1452-1454
 15 Oct 1968 421 J822
 Argyrotaenia velutinana, Experimental insects, Insect cages, Insect rearing, Methodology, Research.
- 17844-68**
PRELIMINARY OBSERVATIONS ON THE EFFECT OF ALCOHOL AND OIL FILMS ON THE OVIPOSITION OF CULEX PIPIENS QUINQUEFASCIATUS (SAY).
 J E Kcirans A S Perry R W Fay
Mosquito News 28(1):71-74
 Mar 1968 421 M85
 Alcohol, Culex pipiens quinquefasciatus, Insect behavior, Mineral oil, Ovulation.
- 17845-68**
COSTELYTRA ZEALANDICA (WHITE) SEX ATTRACTION.
 J M Kelscy
New Zeal Entomol 3(5):57-59
 Dec 1966 421 N48
 Attractants, Costelytra zealandica, Experimental insects, Insect flight, Insect rearing, Methodology, Rainfall, Research, Sex, Temperature, Wind.
- 17846-68**
ELECTRICAL ACTIVITY IN INSECT NERVE CELL BODIES.
 G A Kerkut R M Pitman R J Walker
Life Sci 7(1):605-607 REF
 01 Jun 1968 442.8 L62
 Biochemistry, Cells, Electrophysiology, Insect physiology, Nerves, Periplaneta americana.
- 17847-68**
EFFECTS OF MOLD INHIBITORS IN LARVAL DIET ON THE BIOLOGY OF THE CABBAGE LOOPER.
 A N Kishaba T J Hinneberry R Pangaldan P H Tsao
J Econ Entomol 61(5):1189-1194
 15 Oct 1968 421 J822
 Agar, Biochemistry, Diet, Entomology, Insect biology, Insect physiology, Insect rearing, Larvae, Research, Tables (data), Trichoplusia ni.
- 17848-68**
EFFECT OF THE CHEMOSTERILANT METEPA ON THE HOUSEFLY, MUSCA DOMESTICA L.
 K S Kung
Diss Abstr Sect B 29(1):230B
 Jul 1968 Z5055.U49D53
 Biochemistry, Chemical control (insects), Chemosterilants, Dosage, Drug therapy, Injections, Metepa, Mortality, Musca domestica, Population, Research.
- 17849-68**
ON THE SPHODROMANTIS OF THE SPECIES VIRIDIS FROM NORTHWEST AFRICA. (IT)
 M La Greca
Eos 42(0):493-516)MAP
 28 Feb 1967 421 EO7
 Africa, Entomology, Insect identification, Insect morphology, Insect taxonomy, Sphodromantis, Zoogeography. Species given were: S. viridis viridis, S. viridis meridionalis, S. viridis barbara, S. viridis occidentalis, S. royi.
- 17850-68**
THE INFLUENCE OF TEMPERATURE AND HUMIDITY ON THE DEVELOPMENT OF TENEBRIO MOLITOR L.
 R M Lall
Diss Abstr Sect B 29(1):415B
 Jul 1968 Z5055.U49D53
 Feeding, Humidity, Insect eggs, Insect morphology, Research, Temperature, Tenebrio molitor, Tissues.
- 17851-68**
FUNCTIONAL DEGENERATION OF THE VENOMOUS GLAND OF APIS DURING THE SUMMER AND WINTER. (POR)
 C da C Landim S Baldissera D Beig
Rev Brasil Biol 27(4):355-361
 Dec 1967 442.8 R326

17852-68

Bees, Glands (insects), Insect morphology, Insect physiology. English summary
Abstract

17852-68

ENZYMATIC HYDROLYSIS OF THE ENCYSTED PARASPORE OF *BACILLUS THURINGIENSIS* BY *BOMBYX MORI* L. PROTEASES. (FR)

M M Lecadet D Martouret

Acad Sci Compt Rend Ser D Sci Nat 265(20):1543-1546 REF

13 Nov 1967 505 P21

Bacillus thuringiensis, *Bombyx mori*, Enzymes, Hydrolysis, Insect physiology, Proteinases.

17853-68

SOME INFORMATION ON *TRIATOMA SPINOLAI* PORTER 1934, WITH A STUDY OF THE EXTERNAL GENITALIA (HEMIPTERA, REDUVIIDAE). (POR)

H Lent J Jurberg

Rev Brasil Biol 27(3):273-288 REF

Oct 1967 442.8 R326

Insect anatomy, Reduviidae, Reproductive organs.

17854-68

THE FLIGHT RANGE OF *SIMULIUM DAMNOSUM*.

D J Lewis

Roy Soc Trop Med Hyg Trans 62(3):454

1968 448.9 R813

Breeding, Insect behavior, Insect dissemination, Insect flight, Insect migration, *Simulium damnosum*.

17855-68

EGG AND LARVAL DEVELOPMENT OF *CARDIOCHILES NIGRICEPS*.

W J Lewis S B Vinson

Entomol Soc Amer Ann 61(3):561-565 REF

May 1968 420 EN82

Cardiochiles nigriceps, Dissection, Eggs, *Heliothis virescens*, Insect morphology, Larvae.

17856-68

A RED DYE TO EVALUATE BAIT FORMULATIONS AND TO MASS MARK FIELD POPULATIONS OF BOLL WEEVILS.

E P Lloyd R J Daum R E McLaughlin F C Tingle G H McKibben E C Burt J R McCoy M R Bell T C Cleveland

J Econ Entomol 61(5):1440-1444

15 Oct 1968 421 J822

Anthonomus grandis, Baits, Dyes, Insect behavior, Labeling, Population, Research.

17857-68

ABOUT LEPIDOPTEROUS IMMATURES.

M R MacKay

Can Entomol 100(4):337-341 REF

Apr 1968 421 C16

Insect biology, Insect control, Insect morphology, Lepidoptera, Metamorphosis.

17858-68

PRE-IMAGINAL CONDITIONING IN *DROSOPHILA*.

A Manning

Nature 216(5113):338-340

28 Oct 1967 472 N21

Conditioned reflex, *Drosophilidae*, Experimental insects, Geraniol, Insect behavior, Insect rearing, Olfactometers, Peppermint oil, Research, Scent glands.

17859-68

FOOD DISTRIBUTION WITHIN COLONIES OF THE ARGENTINE ANT, *IRIDOMYRMEX HUMILIS* (MAYR).

G P Markin

Diss Abstr Sect B 29(1):230B

Jul 1968 Z5055.U49D53

Experimental insects, Feeding, Food, Insect behavior, *Iridomyrmex humilis*, Phosphorus isotopes, Radioisotopes, Research, Social insects.

17860-68

INTERCEPTION OF APPLE MAGGOT ADULTS ON COLORED TRAPS IN AN ORCHARD.

C W Maxwell

J Econ Entomol 61(5):1259-1260

15 Oct 1968 421 J822

Attractants, Baits, Color, Experimental insects, Insect collecting equipment, Insect traps, Research, *Rhagoletis pomonella*.

17861-68

INFLUENCE OF POPULATION LEVEL AND TRAP SPACING ON CAPTURE OF TOBACCO HOR-WORM MOTHS IN BLACKLIGHT TRAPS WITH VIRGIN FEMALES.

M W McFadden J J Lam

J Econ Entomol 61(5):1150-1152

15 Oct 1968 421 J822

Baits, Insect traps, Light traps, *Manduca sexta*, Population, Research, Zoogeography.

17862-68

SUB-UNITS OF ACID PHOSPHATASE-1 IN *DROSOPHILA MELANOGASTER*: REVERSIBLE DISSOCIATION IN VITRO.

R J McIntyre M R Dean

Nature 214(5085):274-275 REF

15 Apr 1967 472 N21

Acids, Culture media, *Drosophila melanogaster*, Electrophoresis, Hydrogen-ion concentration, Insect genetics, Phosphatases, Research.

17863-68

PESTICIDES AND POLLUTION. SB959.0U4.

K Mellanby

422 P. ENGLAND, COLLINS CLEAR-TYPE PRESS

1967

Air pollution, Chemical control (pests), Fungicides, Insecticides, Pesticides, Radiation, Vertebrates, Water pollution.

17864-68

SOME ASPECTS OF MATING BEHAVIOR IN BUTTERFLIES.

L D Miller H K Clench

Lepidopterists Soc J 22(3):125-132

20 Aug 1968 421 L554

Butterflies, Environment, Insect behavior, Reports, Reproduction, Research, Insects that were listed: Pieridae, Danaidae, Satyridae, Nymphalidae, Lycaenidae, Hesperidae

17865-68

THE DIRECTIONS OF THE FLOW OF FOOD IN THE ALIMENTARY TRACT OF THE LEAF-HOPPER *EUSCELIDIUS VARIEGATUS* KBM. (JASSIDAE). (GE)

R Munk

Z Vergleichende Physiol 58(3):423-428

1968 444.8 Z3

Digestion, *Euscelidius variegatus*, Filters, Food, Gastrointestinal system, Insect physiology. Summary in English

17866-68

COMPARISON OF APPLICATION RATES OF SOME SOIL INSECTICIDES FOR CONTROL OF WESTERN CORN ROOTWORM LARVAE IN MISSOURI.

G J Musick M L Fairchild

J Econ Entomol 61(5):1188-1189

15 Oct 1968 421 J822

Biochemistry, Chemical control (insects), *Diabrotica virgifera*, Environment, Insect pests, Insecticide application, Insecticides, Larvae, Soils, Tables (data).

17867-68

RETRACTION OF THE CLAIM THAT HOST PREGNANCY AFFECTS PUPAL PRODUCTION BY THE TSETSE FLY.

T A M Nash A M Jordan J A Boyle

Nature 216(5111):163-164

14 Oct 1967 472 N21

Blood meal, Glossina, Goats, Insect behavior, Insect physiology, Pregnancy, Pupae.

17868-68

ENDOGENOUS DIURNAL RHYTHM OF PUPATION IN A MOSQUITO POPULATION.

J K Nayar

Nature 214(5090):828-829

20 May 1967 472 N21

Aedes taeniorhynchus, Diurnal rhythm, Experimental insects, Insect rearing, Photoperiodism, Population, Pupae, Research.

17869-68

ON COLD RESISTANCE OF THE PEA APHID *ACYRTHOSIPHON PISUM* HARR (HOMOPTERA, APHIDIDAE). (RUS)

G V Osipov

Zool Zhur 47(1):137-139 REF

Jan 1968 410 R92

Acyrtosiphon pisum, Aphididae, Hibernation, Insect physiology, Temperature. English abstract

Abstract

17870-68

GROWTH OF ARBOVIRUSES IN MONOLAYERS FROM SUBCULTURED MOSQUITO EMBRYO CELLS.

J Peleg

Virology 35(4):617-618

Aug 1968 448.8 V81

Aedes aegypti, Arboviruses, Cells, Culture media, Physiology, Virus diseases (animals).

17871-68

CELLULAR IMMUNE RESPONSES OF INSECTS TO FOREIGN TISSUE IMPLANTS.

L G Peterson

Diss Abstr Sect B 29(2):646B-647B

Aug 1968 Z5055.U49D53

Cells, Immunity, Insect physiology, Tissues, Transplanting.

17872-68

NUCLEOPROTEIN SYNTHESIS DURING METAMORPHOSIS IN *DROSOPHILA VIRILIS*.

B J Pettit

Diss Abstr Sect B 28(8):3454B

Feb 1968 Z5055.U49D53

Actinomycin d, Biochemistry, Deoxyribonucleic acid, *Drosophila virilis*, Histidine, Metamorphosis, Nucleoproteins, Protein synthesis, Puromycin, Ribonucleic acid, Salivary glands (insects), Uridine.

17873-68

THE DEVELOPMENT OF *THEILERIA PARVA* IN THE SALIVARY GLANDS OF THE TICK, *RHIPICEPHALUS APPENDICULATUS*.

R E Purnell L P Joyner

Parasitology 58(3):725-732 REF

Aug 1968 448.8 P21

Cattle, Feeding, Insect behavior, Insect morphology, Insect rearing, Nymphs, Parasitic insects, Rabbits, Research, *Rhipicephalus appendiculatus*, Salivary glands (insects), *Theileria parva*.

17874-68

LET'S TALK ABOUT THE ADVANTAGES OF BAIT.

L P Quattrochi

Pest Contr 36(6):8-10,12,14

Jun 1968 449.8 EX8

Baits, Blattidae, Chemical control (insects), Household insects.

17875-68

BIONOMICS, ENEMIES AND POPULATION DYNAMICS OF *JAVESSELLA PELLUCIDA* (F.) (HOM., DELPHACIDAE).

M Raatikainen

Ann Agr Fenn 6(28SUP):7-149 MAPS, REF

1967 20 AN7

Biological control (insects), Delphacidae, *Javesella pellucida*, Natural control (insects), Parasitic insects, Predaceous insects.

17876-68

ASPARTATE AMINOTRANSFERASE IN THE PEA APHID, *ACYRTHOSIPHON PISUM* (HARRIS).

- A Retnakaran S D Beck
Compar Biochem Physiol 26(3):1061-1069 REF
Sep 1968 444.8 C73
Acyrtosiphon pisum, Aminotransferases, Biochemistry, Enzymes, Insect physiology. Abstract
- 17877-68**
ROLE OF PHOTOPERIOD, TEMPERATURE, AND INJURY IN INDUCTION AND TERMINATION OF THE PUPAL DIAPAUSE OF HELIOTHIS ZEA (BODDIE).
S H Roach
Diss Abstr Sect B 29(2):647B
Aug 1968 Z5055.U49D53
Heliothis zea, Injuries, Insect morphology, Insect physiology, Photoperiodism, Pupae, Temperature.
- 17878-68**
VITAL STAINING OF INSECT EGGS BY INCORPORATION OF TRYPA BLUE.
K Sander H Vollmar
Nature 216(5111):174-175 REF
14 Oct 1967 472 N21
Acheta domesticus, Dyes, Embryology, Insect eggs, Trypan blue.
- 17879-68**
TYROSINE METABOLISM AND ITS HORMONAL CONTROL AFTER ECLOSION IN THE ADULT FLESHFLY SARCOPHAGA BULLATA PARKER (DIPTERA: SARCOPHAGIDAE).
I M Seligman
Diss Abstr Sect B 29(2):647B
Aug 1968 Z5055.U49D53
Diptera, Hormones, Insect physiology, Metabolism, Sarcophaga bullata, Sarcophagidae, Tyrosine.
- 17880-68**
SENSILLAE ON THE ANTENNAE OF BLOOD-SUCKING BITING MIDGES (DIPTERA, CERATOPOGONIDAE). (RUS)
A K Shevchenko Sh m Djafarov
Zool Zhur 47(1):145-148
Jan 1968 410 R92
Antennae, Ceratopogonidae, Culicoides, Insect morphology, Insect physiology, Sense organs. English abstract
- 17881-68**
ETHYLENE OXIDE FOR THE CONTROL OF AMERICAN FOULBROOD IN HONEY BEES.
H Shimanuki T Lehnert
J Econ Entomol 61(5):1456-1457
15 Oct 1968 421 J822
American foulbrood, Apis mellifera, Bacillus larvae, Bacteria, Biochemistry, Ethylene oxide, Insect diseases, Insecticides, Larvae.
- 17882-68**
A POSSIBLE MARKER FOR EUROPEAN CORN BORER MOTHS.
W B Showers L C Lewis G L Reed
J Econ Entomol 61(5):1464-1465
15 Oct 1968 421 J822
Diet, Fluorescent dyes, Insect behavior, Insect migration, Labeling, Population, Trichoplusia ni.
- 17883-68**
CHAMBERS FOR COLLECTING AND OBSERVING SINGLE PUPAE OF THREE STORED-PRODUCT MOTHS.
E L Soderstrom A E Lovitt
J Econ Entomol 61(5):1468
15 Oct 1968 421 J822
Cadra cautella, Ephestia elutella, Experimental insects, Insect collecting equipment, Plodia interpunctella, Pupae, Research.
- 17884-68**
ON THE INNERVATION OF THE PROTHORACIC GLANDS IN PAPILIO DEMOLEUS L. (LEPIDOPTERA).
K P Srivastava H H Singh
Experientia 24(8):838-839
15 Aug 1968 475 EX7
Insect histology, Insect physiology, Larvae, Lepidoptera, Nervous system, Papilio demoleus. German abstract
- 17885-68**
THE EFFECT OF BLOOD-FEEDING ON THE LONGEVITY OF RADIATION-RESISTANT YELLOW-FEVER MOSQUITOES.
N Stahler L A Terzian
J Econ Entomol 61(5):1447
15 Oct 1968 421 J822
Aedes aegypti, Blood, Experimental insects, Feeding, Gamma rays, Immunity, Longevity, Radiation, Research.
- 17886-68**
TECHNIQUES OF MARKING INSECTS WITH MICRONIZED FLUORESCENT DUST WITH ESPECIAL EMPHASIS ON MARKING MILLIONS OF LYGUS HESPERUS FOR DISPERSAL STUDIES.
V M Stern A Mueller
J Econ Entomol 61(5):1232-1237
15 Oct 1968 421 J822
Dusting, Fluorescent substances, Insect dissemination, Insect migration, Labeling, Lygus hesperus, Pigments, Population, Research.
- 17887-68**
REARING STORED PRODUCT INSECTS FOR LABORATORY STUDIES: SIX SPECIES OF MOTHS.
R G Strong Partida D N Warner
J Econ Entomol 61(5):1237-1249
15 Oct 1968 421 J822
Experimental insects, Humidity, Insect biology, Insect rearing, Moths, Research, Tables (data), Temperature. The moths were: Cadra cautella, Vitula edmandsae serratilineella, Plodia interpunctella, Anagasta kuehniella, C. figulilella and Ephestia elutella.
- 17888-68**
LABORATORY REARING OF CULEX (MELANOCONION) PORTESI SENEVET AND ABONNENC.
M Takahashi
Mosquito News 28(1):82-84 REF
Mar 1968 421 M85
Culex portesi, Insect physiology, Insect rearing.
- 17889-68**
LIFE HISTORY OF THE LOOPER PHIGALIA TITEA IN VIRGINIA.
R L Talerico
Entomol Soc Amer Ann 61(3):557-561
May 1968 420 EN82
Hibernation, Insect histology, Larvae, Ovipositors, Parasitic insects, Phigalia titea, Pupal cases, Soils.
- 17890-68**
SOME COMPARATIVE DATA ON ECOLOGY AND BEHAVIOUR OF STAPHYLINID BEETLES (COLEOPTERA, STAPHYLINIDAE). (RUS)
A L Tichomirova
Zool Zhur 46(12):1785-1798 REF
Dec 1967 410 R92
Insect behavior, Insect ecology, Insect evolution, Staphylinidae.
- 17891-68**
SOME ASPECTS OF ISOLEUCINE METABOLISM IN THE YELLOW FEVER MOSQUITO, AEDES AEGYPTI (L.).
W L Tietjen
Diss Abstr Sect B 29(1):418B
Jul 1968 Z5055.U49D53
Aedes aegypti, Biochemistry, Carbon isotopes, Diet, Isoleucine, Lipids, Metabolism, Proteins.
- 17892-68**
ON PERIODICITY OF GAS EXCHANGE IN ONTOGENESIS OF THE COLORADO BEETLE (LEPTINOTARSA DECEMLINEATA SAY.). (RUS)
T Tilavov
Zool Zhur 47(1):143-145
Jan 1968 410 R92
Diurnal rhythm, Insect physiology, Insect respiration, Leptinotarsa decemlineata. English abstract
- 17893-68**
INFLUENCE OF A VIRUS DISEASE ON THE HEMOCYTIC ANTICRYPTOGRAMIC REACTIONS IN INSECTS. (FR)
A Vey C Vago
Acad Sci Compt Rend Ser D Sci Nat 265(20):1568-1570
13 Nov 1967 505 P21
Blood cells, Insect diseases, Insect physiology, Insects, Mycosis, Viruses. French summary
- 17894-68**
IMPROVEMENT OF A METHOD FOR CULTURING THE EGGS OF THE PHASMID CARAUSIUS MOROSUS BR. DEPRIVED OF THE CHORION. (FR)
J Vignau
Acad Sci Compt Rend Ser D Sci Nat 265(20):1504-1507
13 Nov 1967 505 P21
Fetal membranes, Insect eggs, Insect morphology, Insect physiology, Insect respiration, Phasmatidae. French summary
- 17895-68**
ON THE TETRAPYRROLIC PIGMENTS, ESSENTIAL CONSTITUENTS OF HOMOCHROME: COLORATION IN OEDIPODA COERULESCENS L. (ACRIDAE, ORTHOPTERA). (FR)
M Vuillaume B Levita
Acad Sci Compt Rend Ser D Sci Nat 264(22):2591-2593
29 May 1967 505 P21
Biochemistry, Insect physiology, Oedipoda coerulescens, Orthoptera, Pigments (insect).
- 17896-68**
PERMEABILITY AND EXCITATION OF INSECT MUSCLE.
A C Wareham C J Duncan K Bowler
Nature 217(5132):970-972
09 Mar 1968 472 N21
Atpase, Biochemistry, Insects, Ions, Muscles, Nervous system, Periplaneta americana, Permeability, Potassium, Sodium.
- 17897-68**
PYRETHRINS-PIPERONYL BUTOXIDE APPLIED AS A FOG IN AN EMPTY GRAIN BIN.
F L Watters
J Econ Entomol 61(5):1313-1316
15 Oct 1968 421 J822
Biochemistry, Chemical control (insects), Cryptolestes ferrugineus, Humidity, Insecticidal aerosols, Insecticide application, Insecticide residues, Piperonyl butoxide, Pyrethrum, Storage, Temperature.
- 17898-68**
BIOLOGY OF THE ELM LEAF BEETLE IN SOUTHERN ARIZONA.
G P Wene
J Econ Entomol 61(5):1178-1180
15 Oct 1968 421 J822
Entomology, Experimental insects, Insect biology, Insect morphology, Metamorphosis, Pyrrhalta luteola, Research.
- 17899-68**
MECHANISMS OF INHIBITION AND UNCOUPLING OF OXIDATIVE PHOSPHORYLATION IN HOUSEFLY MITOCHONDRIA.
R L Williamson
Diss Abstr Sect B 29(1):235B
Jul 1968 Z5055.U49D53
Absorption, Adenosine triphosphates, Chemical reactions, Manometry, Mitochondria, Musca domestica, Oxygen, Phosphorylation, Temperature.

17900-68

WINTER OVIPOSITION BY THE ALFALFA WEEVIL IN VIRGINIA.

A M Woodside J L Bishop R I. Prenkowsky

J Econ Entomol 61(5):1230-1232

15 Oct 1968 421 J822

Alfalfa, *Hypera postica*, Insect eggs, Insect pests, Ovulation, Research, Tables (data), Temperature, Weather.

17901-68

COMPARATIVE LIFE HISTORIES OF CHLORDANE-RESISTANT AND NONRESISTANT GERMAN COCKROACHES.

C C Wright

J Econ Entomol 61(5):1317-1321 REF

15 Oct 1968 421 J822

Biochemistry, *Blattella germanica*, Chemical control (insects), Chlordane, Experimental insects, Humidity, Insect behavior, Insect morphology, Insect rearing, Insecticides, Temperature.

GENETICS

17902-68

PHYSIOLOGICAL GENETICS OF MELANOTIC TUMORS IN DROSOPHILA MELANOGASTER. V. AMINO ACID METABOLISM AND TUMOR FORMATION IN THE TU BW; ST SU-TU STRAIN.

B Burnet J H Sang

Genetics 59(2):211-235 REF

Jun 1968 442.8 G28

Amino acids, Biochemistry, Diet, *Drosophila melanogaster*, Genes, Insect genetics, Insect metabolism, Insect physiology, Mutation, Phenylalanine, Tryptophan.

17903-68

SALIVARY CHROMOSOME-LIKE STRUCTURE OF A COCCID CHROMOSOME.

T S S Dikshith

Experientia 24(5):513-514

15 May 1968 475 EX7

Chromosomes, Homoptera, *Icerya aegyptiaca*, Insect genetics, French abstract

17904-68

GAMMA-RAY-INDUCED MUTATIONS IN DROSOPHILA MELANOGASTER OOCYTES: THE PHENOMENON OF DOSE RATE.

E Himoe

Diss Abstr Sect B 28(11):4431B

May 1968 Z5055.U49D53

Chromosomes, Dosage, *Drosophila melanogaster*, Gamma rays, Insect genetics, Irradiation, Lethal factor, Mutation, Therapeutics.

17905-68

MITOTIC CHROMOSOMES OF GLOSSINA PALLIDIPES AUSTEN.

P E Hullely

Nature 217(5132):977-978,979

09 Mar 1968 472 N21

Chromosomes, Entomology, *Glossina pallidipes*, Insect genetics, Mitosis, Morphology, Research.

17906-68

TETRAPLOID FEMALES IN THE HYMENOPTERON, MORMONIELLA.

R M Macy

Diss Abstr Sect B 29(1):415B

Jul 1968 Z5055.U49D53

Breeding, Chromosomes, Cytology, Fertility, Insect genetics, Mutation, *Nasonia*, Parasitic insects, Polyploidy, Research.

17907-68

ACTINOMYCIN D-INDUCED PHENOCOPIES IN DROSOPHILA MELANOGASTER AND THEIR RELEVANCE TO DIFFERENTIAL GENE TRANSCRIPTION. THE GENETIC BASIS OF ACTINOMYCIN D-INDUCED PREFERENTIAL KILLING OF DROSOPHILA MELANOGASTER MALES.

L Margulies

Diss Abstr Sect B 29(2):485B-486B

Aug 1968 Z5055.U49D53

Actinomycin d, *Drosophila melanogaster*, Genetics, Insect control.

17908-68

DEVELOPMENTAL CHARACTERISTICS OF FIVE LETHAL MUTANTS OF DROSOPHILA MELANOGASTER.

C P Wright

Diss Abstr Sect B 28(11):4436B

May 1968 Z5055.U49D53

Drosophila melanogaster, Insect genetics, Insect morphology, Lethal factor, Measurement, Mutation, Oxygen. The five lethal mutants were: gluful-2, glufultyrless-1, glyful-1, phenfultyrless-1, and typrcess-1.

17909-68

MEIOTIC DRIVE AND VISIBLE POLARITY IN DROSOPHILA SPERMATOCYTES.

A F Yanders J G Brewan W J Peacock D J

Goodchild

Genetics 59(2):245-253 REF

Jun 1968 442.8 G28

Chromosomes, Cytology, Cytoplasm, *Drosophila*, Electron microscopy, Insect genetics, Research, Sex, Spermatocytes, Temperature.

MEDICAL ENTOMOLOGY

17910-68

STUDIES OF THE EPIDEMIOLOGY OF ARTHROPOD-BORNE VIRUS INFECTIONS AT MITCHELL RIVER MISSION, CAPE YORK PENINSULA, NORTH QUEENSLAND. II. ARBOVIRUS INFECTIONS OF MOSQUITOES, MAN, AND DOMESTIC FOWLS, 1963-1966.

R L Doherty R H Whitehead E J Wetters B M

Gorman

Roy Soc Trop Med Hyg Trans 62(3):430-438 REF

1968 448.9 R813

Arboviruses, Culicidae, Epidcmiology, Human diseases, Insect ecology, Insect vectors, Light traps, Population, Research, Serological tests, Virus diseases (animals).

17911-68

SPECIAL EQUIPMENT IN THE BOX ELDER COUNTY MOSQUITO AND FLY ABATEMENT DISTRICT.

K L Josephson

Mosquito News 28(1):112-114

Mar 1968 421 M85

Culicidae, Diptera, Drainage ditches, Insect control, Spraying equipment.

17912-68

CULICOIDES CONTROL IN THE CANAL ZONE BY WATER MANAGEMENT.

J P MacLaren J L Hawkins W P Murdoch R G

Bush

Mosquito News 27(4):513-519 REF

Dec 1967 421 M85

Ceratopogonidae, Culicoides, Drainage ditches, Insect control, Panama Canal Zone, Reservoirs.

17913-68

BIOLOGY OF VECTOR-ASSOCIATED DISEASES IN VIETNAM.

H G Scott

Amer Vet Med Ass J 151(12):1741-1750 MAP

15 Dec 1967 41.8 AM3

Filariasis, Helminthiasis, Insect vectors, Malaria, Medical entomology, Plague.

17914-68

STUDIES OF THE EPIDEMIOLOGY OF ARTHROPOD-BORNE VIRUS INFECTIONS AT MITCHELL RIVER MISSION, CAPE YORK PENINSULA, NORTH QUEENSLAND. I. MOSQUITO COLLECTIONS, 1963-1966.

H A Standfast G J Barrow

Roy Soc Trop Med Hyg Trans 62(3):418-429 REF

1968 448.9 R813

Arboviruses, Baits, Epidemiology, Insect dissemination, Insect traps, Insect vectors, Malaria, Population, Rainfall, Research, Temperature, Weather. Insects mentioned were: *Anopheles*, *Culex pullus*, *C. squamosus*, *Mansonia*, *Coquillettidia*, *Uranotaenia*, *Ficallbia*, *Aedeomyia*, *C. annulirostris*.

17915-68

GAMASID MITES (GAMASOIDEA) AS VECTORS OF THE DISEASE CAUSATIVE AGENTS. (RUS)

A A Zemskaya

Zool Zhur 46(12):1771-1785 REF

Dec 1967 410 R92

Epidemiology, Gamasides, Insect vectors, *Oribatei*, Tularemia.

Abstract

CROP PRODUCTION

17916-68

COMPARATIVE GIBBERELLIN RELATIONSHIPS IN TALL AND DWARF PEAS (PISUM SATIVUM L.).

J D Anderson

Diss Abstr Sect B 28(11):4440B-4441B

May 1968 Z5055.U49D53

Gibberellins, Light, Peas, *Pisum sativum*, Plant metabolism, Plant physiology, Seedlings.

17917-68

METHOD FOR ESTIMATING INTENSITY OF THE LITTLE LEAF DISEASE OF BRINJAL (SOLANUM MELONGENA).

A K Banerjee G K Bajpai I N Tandon

Plant Dis Rep 52(2):118-120

Feb 1968 1.9 P69P

Correlation, Eggplant, Leaves, Plant diseases, Research, Sampling (statistics).

17918-68

EVALUATION OF NEMATOCIDES FOR CONTROLLING RENIFORM NEMATODES ON SWEETPOTATOES.

W Birchfield W J Martin

Plant Dis Rep 52(2):127-131 REF

Feb 1968 1.9 P69P

Crop yields, Fumigants, Nematocides, *Rotylenchulus reniformis*, Sampling (statistics), Soil testing, Sweetpotatoes.

17919-68

DESERT GRASSLAND MESQUITE AND FIRE.

R Claveran Alonso

Diss Abstr Sect B 28(8):3121B

Feb 1968 Z5055.U49D53

Bouteloua curtipendula, *Bouteloua gracilis*, Fire, Plant ecology, Plant temperature, *Prosopis velutina*, *Quercus emoryi*, Ranges.

17920-68

EFFECT OF SEED EXTRACT OF TRIFOLIUM SUBTERRANEUM ON GERMINATION AND SEEDLING GROWTH RATE.

A W Ferguson

Nature 217(5133):1064-1066

16 Mar 1968 472 N21

Plant extracts, Plant growth inhibitors, Plant physiology, Seed germination, Seedlings, Subterranean clover, Temperature, Wheat.

17921-68

THE EFFECT OF CARBON SOURCE, CARBON TO NITROGEN RATIOS, AND ORGANIC AMENDMENTS ON SURVIVAL OF PROPAGULES OF VERTICILLIUM ALBO-ATRUM IN SOIL.

R J Green G C Papavizas

Phytopathology 58(5):567-570 REF

May 1968 464.8 P56

Carbon, Nitrogen, Physiology, Plant reproduction, Population statistics, Soils, *Verticillium albo-atrum*.

- 17922-68**
MITOTIC RECOMBINATION IN CONIDIOPHORES OF VERTICILLIUM ALBO-ATRUM.
 A C Hastie
Nature 214(5085):249-252
 15 Apr 1967 472 N21
 Cytology, Fungi, Mitosis, Plant genetics, Reproduction, Research, Verticillium albo-atrum.
- 17923-68**
COMMONWEALTH INSTITUTE OF BIOLOGICAL CONTROL-INDIAN STATION.
 V P Kao
Plant Protect Bull 18(1):1-5
 1966 421 P69
 Biological control (pests), Laboratories, Research.
- 17924-68**
THE EFFECT OF DISINFECTION ON CEREAL SEEDS DETERMINED IN LABORATORY EXPERIMENTS AND EMERGENCE TESTS IN SOIL.
 H Kolk G Ljungberg
Swed Stat Vaxtskyddsanst Medd 13(113):471-484
 1967 464.9 SW3M
 Agricultural research, Fungus diseases (plants), Fusarium, Grain, Greenhouses, Helminthosporium, Laboratories, Land, Seed treatment, Septoria.
- 17925-68**
THE RELATION OF RAINFALL, RELATIVE HUMIDITY, AND TEMPERATURE TO LATE BLIGHT OF POTATO IN SEDES, SINDOS-LAHANOKIPI OF NOMOS THESSALONIKI.
 N C Kyrou
Plant Dis Rep 51(11):936-940 REF
 Nov 1967 1.9 P69P
 Fungus diseases (plants), Humidity, Late blight (potatoes), Phytophthora infestans, Plant disease forecasting, Rainfall, Temperature.
- 17926-68**
EASTERN DWARF MISTLETOE ON JACK PINE IN MANITOBA.
 J G Laut
Plant Dis Rep 51(11):899-900 REF
 Nov 1967 1.9 P69P
 Arceuthobium pusillum, Parasitic plants, Pinus banksiana, Witches' broom (coniferae).
- 17927-68**
DEVELOPMENT OF PARTHENO-CARPIC AND NON-PARTHENO-CARPIC SYCONIA OF FICUS CARICA L. CV. KING IN RELATION TO ENDOGENOUS AND EXOGENOUS GROWTH REGULATORS.
 A F Lodhi
Diss Abstr Sect B 28(11):4447B
 May 1968 Z5055.U49D53
 Crops, Culture media, Figs, Fruit, Gibberellins, Parthenocarp, Plant physiology, Plant regulators.
- 17928-68**
RACE BUILDUP OF XANTHOMONAS MALVACEARUM ON COTTON IN SOUTHEAST MISSOURI.
 J W Miller
Plant Dis Rep 52(9):739-740
 Sep 1968 1.9 P69P
 Angular leafspot (cotton), Cotton, Injections, Leaves, Research, Sampling (statistics), Xanthomonas malvacearum.
- 17929-68**
REDUCING SPRING DISCHARGE OF VENTURIA INAEQUALIS ASCOPORES BY COMPOSTING OVERWINTERING LEAVES.
 P M Miller S Rich
Plant Dis Rep 52(9):728-730
 Sep 1968 1.9 P69P
 Fertilizers, Hibernation, Leaves, Lime, Potassium phosphate, Research, Venturia inaequalis.
- 17930-68**
TWO NEW HARDWOOD HOSTS OF FOMES ANNOSUS.
 D Punter J D Caffey
Plant Dis Rep 52(9):692
 Sep 1968 1.9 P69P
 Fomes annosus, Fraxinus americana, Pinus resinosa, Research, Tree diseases, Ulmus americana.
- 17931-68**
SELECTIVE STAINING OF DEAD CELLS IN BEAN LEAVES INJURED BY OZONE.
 S Rich H Tomlinson
Plant Dis Rep 52(9):732
 Sep 1968 1.9 P69P
 Beans, Cells, Chemicals, Greenhouses, Leaves, Lethal factors, Ozone, Plant diseases, Research.
- 17932-68**
LIST OF PHYTOPATHOLOGICAL TERMS.
 G J Saaltink
Neth J Plant Pathol 74(3):65-84
 1968 464.8 T44
 Nomenclature, Phytopathology, Plant diseases. English summary
- 17933-68**
EXPERIMENTS AND CONSIDERATIONS ON THE ANOMOLIES OF TOMATOES OF THE SUPER MARMANDE TYPE IN HOT HOUSES, CONNECTIONS WITH THE USE OF SOME PLANT HORMONES.
 G Scaramuzzi G Perrotta
Riv Patol Veg (SER.4) 3(3):17 7-205
 Jul 1967 464.8 R52
 Abnormalities, Fertilizer application, Greenhouses, Nutrient solutions (plants), Plant hormones, Plant regulators, Research, Tomatoes. English summary
- 17934-68**
THE IMPACT OF FUNGI ON MAN. QK603.0T3.
 W A Taber R A Taber
 64 P. CHICAGO, RAND MCNALLY AND COMPANY
 1967
 Fungi, Fungus diseases (animals), Fungus diseases (plants), Industry, Man, Plant physiology, Reproduction, Toxins.
- 17935-68**
SUCCESSFUL TISSUE TRANSPLANTATION OF AUXIN-DEPENDENT TUMOURS AND SOME OF ITS PROBLEMS.
 D Torok
Nature 216(5113):376-377 REF
 28 Oct 1967 472 N21
 Chromosomes, Crown galls, Culture media, Diagnosis, Picea glauca, Plant grafting, Plant hormones, Plant physiology, Research, Tissues, Transplanting.
- 17936-68**
PESTICIDES IN THE COMING STRUGGLE FOR FOOD.
 R White-Stevens
Nat Agr Chem Ass News Pesticide Rev 26(5):5-8
 Jun 1968 421 AC8
 Agricultural economics, Food plants, Pest control, Pesticides, Plant protection, Population statistics.
- 17937-68**
GENETICS OF REACTION TO PUCCINIA SORGHII SCHW. IN TEN CORN INBRED LINES OBTAINED FROM AFRICA AND EUROPE.
 D R Wilkinson
Diss Abstr Sect B 28(8):3133B
 Feb 1968 Z5055.U49D53
 Corn, Plant breeding, Plant disease resistance, Plant genetics, Puccinia sorghi.
- 17939-68**
IRREVERSIBLE INHIBITION OF SPORE FORMATION IN ALTERNARIA TOMATO BY DE-DIFFERENTIATION OF CONIDIOPHORES. (ABSTRACT).
 M Aragaki J W Hylin K Maeda
Phytopathology 58(8):1041
 Aug 1968 464.8 P56
 Alternaria tomato, Fungus diseases (plants), Seed germination, Spores, Tomatoes.
- 17940-68**
ANATOMIC EFFECTS OF CADANG-CADANG DISEASE ON COCONUTS.
 E Arguelles-Rasa
Plant Dis Rep 52(9):734-737 REF
 Sep 1968 1.9 P69P
 Anatomy, Coconuts, Kadang-kadang (coconuts), Research, Tree diseases.
- 17941-68**
QUANTITATIVE HISTOLOGY OF MELAMP-SORA LINI RESISTANCE IN FLAX. (ABSTRACT).
 S J Aronson L J Littlefield
Phytopathology 58(8):1041
 Aug 1968 464.8 P56
 Flax, Fungus diseases (plants), Histology, Melamp-sora lini, Plant disease resistance, Rust (flax).
- 17942-68**
STUDIES ON THE CHEMICAL CONTROL OF RICE BLAST CAUSED BY PIRICULARIA ORYZAE CAV.
 M H Ashrafuzzaman
Diss Abstr Sect B 29(2):435B
 Aug 1968 Z5055.U49D53
 Blast (rice), Chemicals, Fungus diseases (plants), Pest control, Piricularia oryzae, Research, Rice.
- 17943-68**
EVALUATION OF SYSTEMIC FUNGICIDES AND INSECTICIDES FOR THE CONTROL OF COTTON BOLL ROT IN VITRO. (ABSTRACT).
 H S Bagga
Phytopathology 58(8):1041
 Aug 1968 464.8 P56
 Boll rot (cotton), Cotton, Fungicides, Fungus diseases (plants), Insecticides, Plant protection.
- 17944-68**
THE BIOLOGY AND ECOLOGY OF FUSARIUM OXYSPORUM F. MELONIS IN SOIL AND THE ROOT ZONES OF HOST AND NONHOST PLANTS.
 Z Banihashemi
Diss Abstr Sect B 29(2):435B-436B
 Aug 1968 Z5055.U49D53
 Biology, Ecology, Fungus diseases (plants), Fusarium oxysporum, Roots, Soil fungi.
- 17945-68**
PATHOGENICITY OF SOME BLUE-STAIN FUNGI IN THE GENUS CERATOCYSTIS. (ABSTRACT).
 H G Basham
Phytopathology 58(8):1042
 Aug 1968 464.8 P56
 Blue stain (coniferae), Ceratocystis, Fungus diseases (plants), Pinus taeda, Vascular system (plants).
- 17946-68**
SPERMIDINE, THE MAJOR POLYAMINE COMPONENT OF TURNIP YELLOW MOSAIC VIRUS. (ABSTRACT).
 S V Beer T Kosuge
Phytopathology 58(8):1042
 Aug 1968 464.8 P56
 Amines, Biochemistry, Turnips, Virus diseases (plants), Yellow mosaic (turnips).
- 17947-68**
DISEASE INVOLVEMENT OF NONAL-LIACEOUS HOSTS BY PYRENOCHAETA TER-RESTRIS. (ABSTRACT).
 R Beliram J C Horton
Phytopathology 58(8):1042

DISEASES

17948-68

Aug 1968 464.8 P56

Fungus diseases (plants), *Pyrenochaeta terrestris*, Temperature, Vegetables.

17948-68

CARBOHYDRATE DISTRIBUTION IN GRAFTED POTATO PLANTS REPRESENTING TWO TYPES OF RESISTANCE TO VIRUS X.

A P Benson W J Hooker

Phytopathology 58(5):571-574 REF

May 1968 464.8 P56

Carbohydrates, Plant disease resistance, Plant grafting, Potatoes, Virus diseases (plants), Virus x (potatoes).

17949-68

ANALYSIS OF COMPETITION IN MODEL SYSTEMS. (ABSTRACT).

D M Benson

Phytopathology 58(8):1043

Aug 1968 464.8 P56

Beans, Biological control (pests), Competition, Fungus diseases (plants), *Fusarium solani* phaseoli.

17950-68

MECHANISM OF INCREASED ROOT ROT IN VIRUS-INFECTED PEAS.

M K Beute

Diss Abstr Sect B 29(2):495B

Aug 1968 Z5055.U49D53

Peas, Plant physiology, Root rot (peas), Roots, Virus diseases (plants).

17951-68

NUMBER OF ZOOSPORES OF APHANOMYCES EUTEICHES REQUIRED FOR INFECTION ON PEAS. (ABSTRACT).

H S Bhallia

Phytopathology 58(8):1043

Aug 1968 464.8 P56

Aphanomyces euteiches, Fungus diseases (plants), Peas, Root rot (peas), Seedlings.

17952-68

EFFECTS OF WATERING FREQUENCY AND SATURATION TIME ON FINE ROOT NECROSIS OF PEACH CAUSED BY PYTHIUM SPP. (ABSTRACT).

J A Biesbrock F F Hendrix

Phytopathology 58(8):1043

Aug 1968 464.8 P56

Fungus diseases (plants), Necrosis, Peaches, Plant water relations, Pythium, Roots, Soil adsorption, Time.

17953-68

ANAEROBIC METABOLISM OF ALBUGO CANDIDA-INFECTED RADISH COTYLEDONS. L L Black P H Williams G S Pound

Phytopathology 58(5):672-675 REF

May 1968 464.8 P56

Acetaldehyde, *Albugo candida*, Carbon dioxide, Metabolism, Radishes.

17954-68

RELATION OF BORON TO CHERRY ROSETTE DISEASE IN OREGON, AND THE POSSIBLE IMPLICATION OF A VIRUS.

B Bolwyn

Diss Abstr Sect B 28(8):3128B

Feb 1968 Z5055.U49D53

Boron, Mazzard cherries, Plant nutritional deficiencies, Rosette (cherries), Virus diseases (plants).

17955-68

THE ROLE OF IAA IN HOST REACTION TO DIFFERENT ISOLATES OF PHYTOPHTHORA CACTORUM. (ABSTRACT).

Z Borecki D F Millikan

Phytopathology 58(8):1044

Aug 1968 464.8 P56

Apples, Collar rot (apples), Fungus diseases (plants), Indoleacetic acid, *Phytophthora cactorum*.

17956-68

A MECHANISM OF ENHANCED RESISTANCE TO CERATOCYSTIS ULMI IN AMERICAN ELMS TREATED WITH SODIUM TRICHLOROPHENYLACETATE.

W D Brenner C H Beckman

Phytopathology 58(5):555-561 REF

May 1968 464.8 P56

Ceratocystis ulmi, Fenac, Fungus diseases (plants), Plant disease resistance, Plant regulators, Tylose, Ulmus.

17957-68

MORPHOLOGY AND LONGEVITY OF VERTICILLIUM ALBO-ATRUM IN COTTON LEAVES. (ABSTRACT).

L A Brinkerhoff D Sarojak N Hormchong N C Rogers

Phytopathology 58(8):1044

Aug 1968 464.8 P56

Cotton, Fungus diseases (plants), Leaves, Longevity, Morphology, *Verticillium albo-atrum*.

17958-68

HELICOPTER APPLICATION OF PHYTOACTIN TO WHITEBARK PINE. (ABSTRACT).

D H Brown O J Dooling

Phytopathology 58(8):1045

Aug 1968 464.8 P56

Aerial spraying, Antibiotics, *Cronartium ribicola*, Fungus diseases (plants), Helicopters, Pesticide application, Phytoactin, *Pinus albicaulis*.

17959-68

CHEMICAL TREATMENT OF HYPOXYLON CANKERS ON ASPEN. (ABSTRACT).

D H Brown S B Silverborg

Phytopathology 58(8):1045

Aug 1968 464.8 P56

Chemicals, Fungus diseases (plants), Hypoxylon, *Populus*, Therapeutics.

17960-68

GERMINATION OF IMMATURE AND MATURE SPORES OF DIPLODIA NATALENSIS. (ABSTRACT).

G E Brown

Phytopathology 58(8):1044

Aug 1968 464.8 P56

Citrus, *Diplodia natalensis*, Fungus diseases (plants), Seed germination, Spores.

17961-68

PERMEABILITY CHANGES IN PEAR FRUITS ASSOCIATED WITH PATHOGENESIS BY ERWINIA AMYLOVORA. (ABSTRACT).

A Burkowicz R N Goodman

Phytopathology 58(8):1045-1046

Aug 1968 464.8 P56

Absorption, Bacterial diseases (plants), *Erwinia amylovora*, Fruit, Pears, Plant translocation. Abstract of American Phytopathological Society meeting

17962-68

RELATION OF UREDIAL AND UREDIOSPORE COUNTS TO EPIPHYTIC DEVELOPMENT OF WHEAT RUSTS AND THE VALUE OF THE COUNTS IN PREDICTING DISEASE. (ABSTRACT).

J R Burleigh R W Romig A P Roelfs

Phytopathology 58(8):1045

Aug 1968 464.8 P56

Fungus diseases (plants), Physiology, *Puccinia graminis*, Rust (wheat), Wheat.

17963-68

DISTRIBUTION IN ONTARIO OF VERTICILLIUM STRAINS CAUSING WILT OF POTATOES.

L V Busch

Can Plant Dis Surv 47(3):76-78

Sep 1967 464.9 C165

Fungus diseases (plants), Potatoes, *Verticillium albo-atrum*, Wilt (potatoes).

17964-68

PREMATURE DEATH OF ADULT RUSTED WHEAT PLANTS IN RELATION TO CARBON DIOXIDE EVOLUTION BY ROOT SYSTEMS.

W R Bushnell J B Rowell

Phytopathology 58(5):651-658 REF

May 1968 464.8 P56

Carbon dioxide, Mortality, Plant diseases, *Puccinia graminis* tritici, Roots, Rust (wheat), Wheat.

17965-68

PECTIN METHYL-TRANS-ELIMINASE AS THE MACERATION FACTOR OF SCLEROTINIA FRUCTIGENA AND ITS SIGNIFICANCE IN BROWN ROT OF APPLE.

R J W Byrde A H Fielding

J Gen Microbiol 52(2):287-297 REF

Jul 1968 448.3 J823

Apples, Brown rot (apples), Fungus diseases (plants), Plant biochemistry, *Sclerotinia fructigena*.

Abstract

17966-68

INFLUENCE OF NITROGEN FORM ON THE INCIDENCE AND SEVERITY OF APHANOMYCES ROOT ROT OF PEAS. (ABSTRACT).

H E Carley T H King

Phytopathology 58(8):1046

Aug 1968 464.8 P56

Aphanomyces euteiches, Fungus diseases (plants), Nitrogen, Peas, Root rot (peas).

17967-68

PATCH CANKER OF HEVEA BRASILIENSIS CAUSED BY PHYTOPHTHORA PALMIVORA.

K H Chee

Plant Dis Rep 52(2):132-133

Feb 1968 1.9 P69P

Artificial insemination, Culture media, Environment, Fungus diseases (plants), *Hevea brasiliensis*, Petrolatum, *Phytophthora palmivora*, *Pythium*, Spraying, Tissues, Wood decay.

17968-68

SUSCEPTIBILITY OF TOMATO VARIETIES TO SCLEROTIUM ROLFII.

G C Clerk J T Dakwa

Plant Dis Rep 51(11):941

Nov 1967 1.9 P69P

Fungus diseases (plants), Plant disease resistance, Rot (tomatoes), *Sclerotium rolfsii*, Tomatoes.

17969-68

CARBON DIOXIDE-POWERED PLOT SPRAYER FOR TURFGRASS DISEASE CONTROL FUNGICIDE APPLICATION.

H Cole P M Anderson

Plant Dis Rep 52(9):678-682

Sep 1968 1.9 P69P

Carbon dioxide, Equipment, Fungicides, Grasses, Spraying, Turf.

17970-68

EFFECT OF XANTHOMONAS VESICATORIA ON LOSS OF ELECTROLYTES FROM LEAVES OF CAPSICUM ANNUUM.

A A Cook R E Stall

Phytopathology 58(5):617-619 REF

May 1968 464.8 P56

Bacteria, Bush redpeppers (vegetable), Electrolytes, Leaves, Plant diseases, Plant physiology, *Pseudomonadaceae*, *Xanthomonas vesicatoria*.

17971-68

ECOLOGICAL AND POSSIBLE SIGNIFICANCE OF PERITHECIA OF CALONECTRIA NIVALIS IN THE PACIFIC NORTHWEST.

R J Cook G W Bruehl

Phytopathology 58(5):702-703

May 1968 464.8 P56

Calonectria nivalis, Ecology, *Fusarium nivale*, Grain, Perithecia.

- 17972-68**
THE RELATIONSHIPS OF OZONE, LOPHODERMUM PINASTRI AND PULLULARIA PULLULANS TO NEEDLE BLIGHT OF EASTERN WHITE PINE.
 A C Costonis
Diss Abstr Sect B 29(2):436B-437B
 Aug 1968 Z5055.U49D53
 Fungus diseases (plants), Lophodermium pinastri, Needle blight (pinus), Ozone, Pinus strobus, Pullularia pullulans.
- 17973-68**
SOIL FUMIGANTS TESTED FOR CONTROL OF CROWN GALL.
 I W Deep R A McNeilan I C MacSwan
Plant Dis Rep 52(2):102-105
 Feb 1968 1.9 P69P
 Chemical control (plant diseases), Cherries, Crown galls, Fumigants, Greenhouse culture, Methyl bromide, Seedlings, Soil temperature, Soil testing.
- 17974-68**
POTATO SPINDLE TUBER VIRUS: IN SITU SENSITIVITY OF THE INFECTIOUS AGENT TO RIBONUCLEASE. (ABSTRACT).
 T O Diener
Phytopathology 58(8):1048
 Aug 1968 464.8 P56
 Allergies, Potatoes, Ribonucleic acid, Spindle tuber (potatoes), Virus diseases (plants).
- 17975-68**
OCCURRENCE OF POPLAR CANKERS CAUSED BY FUSARIUM SOLANI IN IOWA.
 L S Dochinger
Plant Dis Rep 51(11):900-903 REF
 Nov 1967 1.9 P69P
 Canker (populus), Fungus diseases (plants), Fusarium solani, Populus alba, Populus deltoides, Populus grandidentata.
- 17976-68**
EFFECT OF SOIL STERILIZATION AND SOIL TYPE ON APPARENT SUSCEPTIBILITY OF TWO MUSKMELON VARIETIES TO FUSARIUM OXYSPORUM F. SP. MELONIS. (ABSTRACT).
 D R Douglas C J Eide
Phytopathology 58(8):1048
 Aug 1968 464.8 P56
 Fungus diseases (plants), Fusarium oxysporum, Muskmelons, Plant disease resistance, Soil analysis, Soil sterilization.
- 17977-68**
EFFECT OF UROMYCES PHASEOLI ON THE WATER RELATIONS OF PRIMARY BEAN LEAVES. (ABSTRACT).
 J M Duniway R D Durbin
Phytopathology 58(8):1049
 Aug 1968 464.8 P56
 Beans, Leaves, Plant physiology, Plant water relations, Uromyces phaseoli.
- 17978-68**
EFFECTIVENESS OF SPECIFIC GENES AND GENE COMBINATIONS IN CONFERRING RESISTANCE TO RACES OF XANTHOMONAS MALVACEARUM IN UPLAND COTTON. (ABSTRACT).
 K M El-Zik L S Bird
Phytopathology 58(8):1049
 Aug 1968 464.8 P56
 Bacterial diseases (plants), Cotton, Genes, Genetics, Plant disease resistance, Xanthomonas malvacearum.
- 17979-68**
MYCELIAL GROWTH AND PRODUCTION OF OOSPORES AS AFFECTED BY BETA-SITOSTEROL, AND THE GERMINATION OF OOSPORES OF PHYTOPHTHORA MEGASPERMA VAR. SOJAE. (ABSTRACT).
 D C Erwin J E Partridge W H McCormick
Phytopathology 58(8):1049
 Aug 1968 464.8 P56
- Agar, Beta-sitosterol, Fungus diseases (plants), Phytophthora megasperma, Plant physiology, Reproduction, Seed germination, Spores.
- 17980-68**
THE SUPPRESSION OF ACTINOMYCETES BY PCNB IN CULTURE MEDIA USED FOR ENUMERATING SOIL BACTERIA.
 J D Farley J L Lockwood
Phytopathology 58(5):714-715
 May 1968 464.8 P56
 Actinomycetes, Biochemistry, Culture media, Pentachloronitrobenzene, Soil bacteria, Soil microbiology.
- 17981-68**
CHEMICAL CONTROL OF SCAB AND ANTHRACNOSE ON SUSCEPTIBLE VARIETIES OF CITRUS IN FLORIDA. (ABSTRACT).
 F E Fisher
Phytopathology 58(5):553
 May 1968 464.8 P56
 Anthracnose (citrus), Chemical control (plant diseases), Citrus, Colletotrichum gloeosporioides, Elsinore fawcetti, Plant diseases, Scab (citrus). Abstract of meeting of Caribbean Division of American Phytopathological Society, 1967
- 17982-68**
RELATIONSHIP BETWEEN FREE AMINO ACIDS AND SYMPTOM EXPRESSION IN CORN INFECTED WITH MAIZE DWARF MOSAIC VIRUS OR SUGARCANE MOSAIC VIRUS. (ABSTRACT).
 R E Ford J C Tu
Phytopathology 58(8):1050
 Aug 1968 464.8 P56
 Amino acids, Corn, Dwarf mosaic (corn), Mosaic (sugarcane).
- 17983-68**
LOCAL LESION DEVELOPMENT IN TURKISH TOBACCO LEAVES HEATED AFTER INOCULATION WITH TOBACCO MOSAIC VIRUS. (ABSTRACT).
 J A Foster A F Ross
Phytopathology 58(8):1050
 Aug 1968 464.8 P56
 Injections, Leaves, Mosaic (tobacco), Temperature, Tobacco, Virus diseases (plants).
- 17984-68**
INCIDENCE AND PATHOGENICITY OF FUNGI FOUND ON CRANBERRY IN WISCONSIN.
 R J Friend
Diss Abstr Sect B 29(2):438B
 Aug 1968 Z5055.U49D53
 Cranberries, Fungi, Fungus diseases (plants).
- 17985-68**
INVESTIGATIONS OF THE MECHANISM OF THE NECROTIC RESPONSE OF NICOTIANA TABACUM L. VAR. SAMSUN NN TO INFECTION WITH TOBACCO MOSAIC VIRUS.
 H Gaona-Rodriguez
Diss Abstr Sect B 29(2):438B-439B
 Aug 1968 Z5055.U49D53
 Mosaic (tobacco), Necrosis, Plant physiology, Research, Tobacco, Virus diseases (plants).
- 17986-68**
ULTRASTRUCTURE OF ZEA MAYS LEAF CELLS INFECTED WITH JOHNSON GRASS STRAIN OF SUGARCANE MOSAIC VIRUS. (ABSTRACT).
 W S Gardner
Phytopathology 58(8):1050-1051
 Aug 1968 464.8 P56
 Anatomy, Cells, Corn, Leaves, Mosaic (sugarcane), Sorghum halepense, Virus diseases (plants).
- 17987-68**
SEEDLING RESISTANCE TO POWDERY MILDEW OF PURDUE 5752CL-7-5-1 WHEAT DERIVED FROM TRITICUM TIMOPHEEVI. (ABSTRACT).
 M S Ghemawat C B Kenaga J F Schafer
Phytopathology 58(8):1051
 Aug 1968 464.8 P56
 Fungus diseases (plants), Plant disease resistance, Powdery mildew (wheat), Seedlings, Timopheevi wheat, Wheat.
- 17988-68**
RELATIONSHIP OF ETHYLENE TO CURLY TOP SYMPTOMS. (ABSTRACT).
 A H Gold G Faccioli
Phytopathology 58(8):1052
 Aug 1968 464.8 P56
 Biochemistry, Curly top (sugar beets), Ethylene, Sugar beets, Virus diseases (plants).
- 17989-68**
ULTRASTRUCTURAL CHANGES IN APPLE LEAF CELLS INDUCED BY VIRULENT AND AVIRULENT STRAINS OF ERWINIA AMYLOVORA. (ABSTRACT).
 R N Goodman A Burkowicz
Phytopathology 58(8):1052
 Aug 1968 464.8 P56
 Anatomy, Apples, Bacterial diseases (plants), Cells, Erwinia amylovora, Leaves.
- 17990-68**
EFFECTS OF BARLEY STRIPE MOSAIC VIRUS INFECTION ON THE RESPIRATION OF BARLEY LEAVES. (ABSTRACT).
 D T Gordon D C Arny
Phytopathology 58(8):1052
 Aug 1968 464.8 P56
 Barley, Leaves, Plant physiology, Respiration, Stripe mosaic (barley), Virus diseases (plants).
- 17991-68**
THE EFFECT OF POLYPLOIDY ON PLANT VIRUS REPLICATION AND CONTROL.
 D E Harder
Diss Abstr Sect B 29(2):439B-440B
 Aug 1968 Z5055.U49D53
 Pest control, Polyploidy, Reproduction, Virus diseases (plants).
- 17992-68**
THE DEVELOPMENT OF ALBUGO CANDIDA-INDUCED 'GREEN ISLANDS' ON BRASSICA JUNCEA COTYLEDONS.
 H Harding
Diss Abstr Sect B 29(2):440B
 Aug 1968 Z5055.U49D53
 Albugo, Brassica juncea, Fungus diseases (plants), Plant physiology.
- 17993-68**
HIGH-TEMPERATURE-INDUCED INSOLUBLE COAT PROTEIN IN TOBACCO MOSAIC VIRUS (TMV)-INFECTED PLANTS. (ABSTRACT).
 V Hariharasubramanian M Zaitlin
Phytopathology 58(8):1052-1053
 Aug 1968 464.8 P56
 Mosaic (tobacco), Proteins, Temperature, Tobacco, Virus diseases (plants).
- 17994-68**
THE ROLE OF COTTON AND BEAN SEED EXUDATE IN PRE-EMERGENCE INFECTION BY RHIZOCTONIA SOLANI.
 D S Hayman
Diss Abstr Sect B 29(1):10B
 Jul 1968 Z5055.U49D53
 Amino acids, Beans, Cotton, Fungus diseases (plants), Peas, Plant physiology, Research, Rhizoctonia solani, Seed germination, Seedlings, Temperature, Tissues.
- 17995-68**
EFFECT OF MODERATE ADULT RESISTANCE ON PENETRATION, HYPHAL GROWTH RATES, AND UREDIOSPORE PRODUCTION BY CROWN RUST OF OATS. (ABSTRACT).
 A S Heagle M B Moore
Phytopathology 58(8):1053
 Aug 1968 464.8 P56
 Crown rust (oats), Fungus diseases (plants), Oats, Plant disease resistance, Plant physiology, Puccinia coronata, Reproduction.

17996-68

17996-68

SYSTEMIC-CHEMICAL PAINTS FOR THE CONTROL OF CYTOSPORA CANKER DISEASE IN PRUNE TREES.

A W Helton W J Kochan
Plant Dis Rep 52(2):154-157
Feb 1968 1.9 P69P

Canker (plums), Cycloheximide thiosemicarbazone, Cytospora cincta, Dimethyl sulfoxide, Fungicides, Linseed oil, Plant diseases, Plums, Water.

17997-68

PREVALENCE OF THIELAVIOPSIS BASICOLA IN NATURALLY INFESTED SOIL AFTER CULTIVATION OF VARIOUS CROPS FOR FIVE CONSECUTIVE YEARS. (ABSTRACT).

L Henson C C Litton G W Stokes

Phytopathology 58(8):1053

Aug 1968 464.8 P56

Field crops, Population, Soil fungi, Thielaviopsis basicola, Tillage, Time.

17998-68

AN INVESTIGATION OF THE TOBACCO MOSAIC VIRUS MULTIPLICATION PROCESS AND ITS EFFECT ON THE METABOLISM OF THE HOST.

A Hirai

Diss Abstr Sect B 29(2):497B-648B

Aug 1968 Z5055.U49D53

Metabolism, Mosaic (tobacco), Reproduction, Research, Tobacco, Virus diseases (plants).

17999-68

ASCOSPORE PRODUCTION, DISCHARGE AND INFECTION BY GLOMERELLA CINGULATA CAUSING COFFEE BERRY DISEASE.

D Hocking J C Johannis H Vermeulen

Nature 214(5093):1144-1145 REF

10 Jun 1967 472 N21

Ascospores, Coffee berry disease, Economics, Fungus diseases (plants), Glomerella cingulata, Plant disease transmission, Plant morphology, Rainfall, Reproduction, Research.

18000-68

COMPARATIVE PHYSIOLOGY OF PINUS MONTICOLA DOUGL. RESISTANT AND SUSCEPTIBLE TO CRONARTIUM RIBICOLA J. C. FISCH. EX. RABENH.

R J Hoff

Diss Abstr Sect B 29(2):441B

Aug 1968 Z5055.U49D53

Cronartium ribicola, Fungus diseases (plants), Pinus monticola, Plant disease resistance, Plant physiology.

18001-68

EXOCORTIS IN ORTANIQUE ORANGE.

I Hosein

Plant Dis Rep 52(9):741

Sep 1968 1.9 P69P

Exocortis (oranges), Oranges, Research, Roots, Virus diseases (plants).

18002-68

SEROLOGICAL DIAGNOSTIC METHOD WITHOUT ISOLATION OF ERWINIA AMYLOVORA CULTURE FROM A DISEASED PLANT. (RUS)

V P Izrail'sky S N Schkljar G I Orlova

Microbiol Espon 36(3):497-502

May 1967 448.3 M583

Antibiotics, Erwinia amylovora, Fire blight (fruit), Physiology, Taxonomy. English and Russian abstract

Abstract

18003-68

EFFECT OF SOIL FUNGICIDES ON DEVELOPMENT OF FUNGI IN SOIL AND ON KERNELS OF GROUNDNUT.

A Z Joffe N Lisker

Plant Dis Rep 52(9):718-721

Sep 1968 1.9 P69P

Aspergillus flavus, Chemicals, Crop yields, Fungicides, Fusarium solani, Injections, Peanuts, Seedlings, Soil fungi, Soils.

18004-68

A PHYTOPHTHORA FROM SUBTERRANEAN CLOVER ROOTS THAT ATTACKS SOYBEAN AND OTHER LEGUMES. (ABSTRACT).

H W Johnson B L Keeling

Phytopathology 58(8):1054

Aug 1968 464.8 P56

Fungus diseases (plants), Legumes, Phytophthora, Roots, Soybeans, Subterranean clover.

18005-68

PROTEIN AND ENZYME CHANGES IN WHEAT LEAVES FOLLOWING INFECTION WITH PUCCINIA RECONDITA.

L B Johnson B L Brannaman F P Zscheile

Phytopathology 58(5):578-583 REF

May 1968 464.8 P56

Enzymes, Fungus diseases (plants), Leaves, Proteins, Puccinia recondita, Rust (wheat), Wheat.

18006-68

POTENTIAL OF THE RHIZOBIUM-FUSARIUM INTERACTIONS ON THE INCIDENCE OF ALFALFA ROOT ROT.

H W Johnston

Diss Abstr Sect B 29(2):441B-442B

Aug 1968 Z5055.U49D53

Alfalfa, Fusarium, Rhizobium, Root rot (alfalfa).

18007-68

TOBACCO NECROSIS VIRUS AND ITS SATELLITE VIRUS.

B Kassanis

Nature 214(5084):178

08 Apr 1967 472 N21

Culture media, Necrosis, Research, Tobacco, Viruses.

18008-68

ISOLATION AND PROPERTIES OF PLASMIDIOPHORA BRASSICAE PLASMODIA FROM INFECTED CRUCIFER TISSUES AND TISSUE CULTURE CALLUS. (ABSTRACT).

N T Keen M N Reddy P H Williams

Phytopathology 58(8):1054

Aug 1968 464.8 P56

Callus (plants), Cruciferae, Fungus diseases (plants), Plasmidiophora brassicae, Properties, Tissue culture, Tissues.

18009-68

THE RESPONSE OF BEAN TO OZONE AS RELATED TO INFECTION BY PSEUDOMONAS PHASEOLICOLA. (ABSTRACT).

E D Kerr R A Reinert

Phytopathology 58(8):1055

Aug 1968 464.8 P56

Beans, Biochemistry, Fungus diseases (plants), Ozone, Pseudomonas phaseolicola.

18010-68

GENETIC VARIATION IN SUSCEPTIBILITY TO FUSIFORM RUST IN A WILD POPULATION OF LOBLOLLY PINE. (ABSTRACT).

B B Jr. Kinloch

Phytopathology 58(8):1055

Aug 1968 464.8 P56

Cronartium fusiforme, Fungus diseases (plants), Genetics, Pinus taeda, Plant disease resistance, Rust (pinus taeda).

18011-68

STUDIES ON THE EFFECTS OF IIG(II) AND SUCROSE ON THE MECHANICAL TRANSMISSION OF TOBACCO MOSAIC VIRUS RIBONUCLEIC ACID TO PINTO BEAN (PHASEOLUS VULGARIS L.).

J R Kongsvik

Diss Abstr Sect B 29(2):442B-443B

Aug 1968 Z5055.U49D53

Injections, Kidney beans, Mercury, Mosaic (tobacco), Research, Ribonucleic acid, Sucrose, Virus diseases (plants).

18012-68

BIOLOGICAL AND ECOLOGICAL RELATIONSHIPS OF THE FUNGUS, ENTOMOPHTHORA CORONATA (COSTANTINI) KEVORKIAN AND THE GARDEN SYMPHYLAN, SCUTIGERELLA IMMACULATA (NEWPORT).

R F Koontz

Diss Abstr Sect B 29(2):646B

Aug 1968 Z5055.U49D53

Biology, Ecology, Entomophthora coronata, Fungi, Scutigereella immaculata.

18013-68

EFFECT OF VARIETY ON THE CONTROL OF POTATO LATE BLIGHT WITH FUNGICIDES. (ABSTRACT).

R E Kroll C J Eide

Phytopathology 58(8):1056

Aug 1968 464.8 P56

Chemical control (pests), Fungicides, Fungus diseases (plants), Late blight (potatoes), Potatoes.

18014-68

INTERCEPTIONS OF PLANT DISEASES THROUGH THE PORT OF BOMBAY.

T B Lal

Plant Protect Bull 18(2):9-13

1966 421 P69

Airports, Foreign trade, Import control, Plant diseases, Plant quarantine.

18015-68

RACES OF PUCCINIA POLYSORA IN NIGERIA.

G M Lallmahomed J Craig

Plant Dis Rep 52(2):136-138

Feb 1968 1.9 P69P

Corn, Fungus diseases (plants), Greenhouse culture, Humidity, Plant physiology, Puccinia polysora, Puccinia sorghi, Rust (corn), Seedlings.

18016-68

RELATIONSHIPS AMONG RACES OF PYRICULARIA ORYZAE. (ABSTRACT).

F M Latterell M A Marchetti

Phytopathology 58(8):1057

Aug 1968 464.8 P56

Blast (rice), Fungus diseases (plants), Immunity, Plant disease resistance, Pyricularia oryzae, Rice.

18017-68

MULTIPLICATION OF PSEUDOMONAS GLYCINEA IN BUDS OF SOYBEAN SEEDLINGS. (ABSTRACT).

C Leben V Rusch A F Schmittthener

Phytopathology 58(8):1057

Aug 1968 464.8 P56

Fungus diseases (plants), Pseudomonas glycinea, Reproduction, Seedlings, Soybeans.

18018-68

ROLE OF NITROGEN IN WOOD DETERIORATION. VI. MYCELIAL FRACTIONS AND MODEL NITROGEN COMPOUNDS AS SUBSTRATES FOR GROWTH OF POLYPORUS VERSICOLOR AND OTHER WOOD-DESTROYING AND WOOD-INHABITING FUNGI.

M P Levi W Merrill E B Cowling

Phytopathology 58(5):626-634 REF

May 1968 464.8 P56

Basidiomycetes, Fungi, Nitrogen compounds, Plant diseases, Polyporus versicolor, Tree injuries, Wood decay, Wood destroying fungi.

18019-68

EFFECT OF RUTIN AND ITS DEGRADATION PRODUCTS ON FUSARIUM ROOT ROT OF BEAN. (ABSTRACT).

J A Lewis

Phytopathology 58(8):1057

Aug 1968 464.8 P56

Degradation, Fungus diseases (plants), Fusarium solani phaseoli, Root rot (beans), Rutin.

18020-68

PHYTOALEXIN PRODUCTION IN CORN RESISTANT TO HELMINTHOSPORIUM TURCICUM.

S M Lim J D Paxton A L Hooker

- Phytopathology* 58(5):720-721
May 1968 464.8 P56
Corn, Fungus diseases (plants), Genes, Helminthosporium turcicum, Phytoalexin, Plant genetics, Plant pest resistance.
- 18021-68**
STIMULATION OF SCLEROTIUM ROLFII AND ITS ANTAGONISTS BY VOLATILE COMPONENTS OF ALFALFA HAY. (ABSTRACT).
R G Linderman R G Gilbert
Phytopathology 58(8):1057
Aug 1968 464.8 P56
Alfalfa, Competition, Fungus diseases (plants), Hay, Sclerotium rolfii.
- 18022-68**
STEM RUST INFECTION AND DEVELOPMENT IN ARTIFICIALLY INOCULATED FIELDS OF WHEAT AT HAYS, KANS., AND ITS EFFECT ON YIELD, 1960 TO 1965. (ABSTRACT).
R F Line C E Peet C H Kingsolver
Phytopathology 58(8):1057-1058
Aug 1968 464.8 P56
Fungus diseases (plants), Puccinia graminis, Stem rust (wheat), Wheat.
- 18023-68**
AUXIN AND CROWN GALL TUMOR INITIATION. (ABSTRACT).
J A Lippincott B B Lippincott
Phytopathology 58(8):1058
Aug 1968 464.8 P56
Agrobacterium tumefaciens, Bacterial diseases (plants), Beans, Crown galls (beans), Indoleacetic acid, Plant hormones.
- 18024-68**
A SECOND GENE FOR RESISTANCE TO PUCCINIA GRAMINIS F SP TRITICI IN THE RED EGYPTIAN 2D WHEAT SUBSTITUTION LINE. W Q Loegering
Phytopathology 58(5):584-586
May 1968 464.8 P56
Plant breeding, Plant disease resistance, Plant genetics, Poulard wheat, Puccinia graminis tritici. Spanish summary
- 18025-68**
DIFFERENTIATION OF RACES OF PSEUDOMONAS SOLANACEARUM BY A HYPERSENSITIVE REACTION OF TOBACCO LEAVES. (ABSTRACT).
J C Lozano L Sequeira
Phytopathology 58(8):1058
Aug 1968 464.8 P56
Allergies, Bacterial diseases (plants), Leaves, Pseudomonas solanacearum, Tobacco.
- 18026-68**
LOW LIGHT INTENSITY PROMOTES MELTING OUT OF BLUEGRASS. (ABSTRACT).
R J Lukens
Phytopathology 58(8):1058
Aug 1968 464.8 P56
Epidemiology, Fungus diseases (plants), Helminthosporium vagans, Lighting, Melting out (poa), Poa.
- 18027-68**
RESISTANCE BREAKDOWN IN MAIZE TO MAIZE DWARF MOSAIC VIRUS AFTER TREATMENT WITH ATRAZINE. (ABSTRACT).
D R MacKenzie H Cole C D Ercegovich
Phytopathology 58(8):1058
Aug 1968 464.8 P56
Atrazine, Biochemistry, Corn, Dwarf mosaic (corn), Plant disease resistance, Therapeutics, Virus diseases (plants).
- 18028-68**
INFLUENCE OF NITROGEN NUTRITION ON FUSARIUM ROOT ROT OF PINTO BEAN AND ON ITS SUPPRESSION BY BARLEY STRAW. C R Maier
Phytopathology 58(5):620-625 REF
May 1968 464.8 P56
Barley straw, Fusarium, Kidney beans, Nitrogen, Nutrition, Plant diseases, Root rot (beans).
- 18029-68**
INDUCED RESISTANCE TO BACTERIAL WILT IN SUSCEPTIBLE TOBACCO CUTTINGS PRETREATED WITH AVIRULENT MUTANTS OF PSEUDOMONAS. (ABSTRACT).
C E Main
Phytopathology 58(8):1058-1059
Aug 1968 464.8 P56
Bacterial diseases (plants), Mutation, Plant cuttings, Plant disease resistance, Pseudomonas, Tobacco, Wilt (tobacco).
- 18030-68**
CONCENTRATIONS OF SOLUTES IN BLISTER RUST INFECTIONS OF WESTERN WHITE PINE. (ABSTRACT).
N E Martin
Phytopathology 58(8):1059
Aug 1968 464.8 P56
Blister rust (pinus monticola), Cronartium ribicola, Fungus diseases (plants), Pinus monticola, Solute.
- 18031-68**
RELATION OF INVASION OF CEREAL GRAINS AND OIL SEEDS BY STORAGE FUNGI TO INCREASE IN TOTAL AND MAJOR INDIVIDUAL FATTY ACIDS. (ABSTRACT).
D C McGee C M Christensen
Phytopathology 58(8):1059-1060
Aug 1968 464.8 P56
Fatty acids, Fungus diseases (plants), Grain, Oil seeds, Storage.
- 18032-68**
A STUDY ON AUXIN AND CHLOROGENIC ACID IN LEAF-ROLL RESISTANT AND SUSCEPTIBLE POTATO VARIETIES. R T McMillan
Diss Abstr Sect B 29(2):443B
Aug 1968 Z5055.U49D53
Chlorogenic acid, Leaf roll (potatoes), Plant disease resistance, Plant hormones, Potatoes, Research, Virus diseases (plants).
- 18033-68**
ALTERNARIA TENUIS ON ANTIRRHINUM. S C Melville T E Chalk
Plant Pathol 17(2):95
Jun 1968 464.8 P692
Alternaria tenuis, Antirrhinum majus, Fungus diseases (plants), Injections, Nurseries, Seedlings, Spraying.
- 18034-68**
EFFECT OF CONTROL PROGRAMS ON DEVELOPMENT OF EPIDEMICS OF DUTCH ELM DISEASE. (ABSTRACT).
W Merrill
Phytopathology 58(8):1060
Aug 1968 464.8 P56
Dieback (ulmus), Epidemiology, Plant diseases, Plant protection, Ulmus.
- 18035-68**
AN ARYLSULFATASE IN THE WOOD ROTTING BASIDIOMYCETE, FOMES GEOTROPUS. F H Millazzo G J Loughheed
Can J Bot 45(4):532-534
Apr 1967 470 C16C
Arylsulfatase, Basidiomycetes, Fomes geotropus, Plant metabolism, Wood destroying fungi.
- 18036-68**
INTERACTION OF MELOIDOGYNE JAVANICA AND PHYTOPHTHORA PARASITICA VAR NICOTIANAE ON NICOTIANA TABACUM (N. C. 95). (ABSTRACT).
C R Miller
Phytopathology 58(5):553
May 1968 464.8 P56
Black shank (tobacco), Fungus diseases (plants), Meloidogyne incognita, Meloidogyne javanica, Nematodes, Phytophthora parasitica nicotianae, Tobacco. Abstract of meeting of Caribbean Division of American Phytopathological Society, 1967
- 18037-68**
IDENTIFICATION OF STRAINS OF WATERMELON MOSAIC VIRUS BY SEROLOGY AND OTHER CHARACTERISTICS. (ABSTRACT).
K S Milne R G Grogan
Phytopathology 58(8):1060
Aug 1968 464.8 P56
Mosaic (watermelons), Properties, Serological tests, Virus diseases (plants), Watermelons.
- 18038-68**
ENVIRONMENTAL EFFECTS AND TRANSFER EVENTS DURING PRIMARY INFECTION OF WHEAT BY ERYSIPE GRAMINIS. M S Mount
Diss Abstr Sect B 29(2):444B
Aug 1968 Z5055.U49D53
Environment, Erysiphe graminis, Fungus diseases (plants), Wheat.
- 18039-68**
TRANSMISSION OF A LEAFHOPPER-BORNE VIRUS FROM NATURALLY INFECTED POA ANNUA IN CZECHOSLOVAKIA. A Murtomaa V Valenta
Biologia (bratislava) 23(5):389-392
1968 442.8 B5265
Barley, Cicadellidae, Insect vectors, Poa annua, Virus diseases (plants), Czechoslovakian, russian, german and english abstract
Abstract
- 18040-68**
SOME ADDITIONS TO THE SPECIES OF CERCOPORA FROM WEST PAKISTAN. M A Nasir Z Ullah
Pakistan J Sci 19(1-2):45-46
Jan 1967 475 P172
Cercospora alhagi, Cercospora convolvuli, Cercospora medicaginis, Cercospora premnae, Fungus diseases (plants), Plant diseases.
- 18041-68**
INCREASING THE EFFICACY OF FUNGICIDAL CONTROL OF BLACK POD ROT OF CACAO INCITED BY PHYTOPHTHORA PALMIVORA. (ABSTRACT).
A G Newhall
Phytopathology 58(5):553
May 1968 464.8 P56
Black pod (cacao), Cacao, Fungus diseases (plants), Pesticides, Phytophthora palmivora, Spraying. Abstract of meeting of Caribbean Division of American Phytopathological Society, 1967
- 18042-68**
THE PRESENCE OF TRISTEZA VIRUS IN CERTAIN SPECIES OF CITRUS IN CYPRUS. A Papisolomontos C V Economides
Fao Plant Protect Bull 16(1):8-9 REF
Feb 1968 421 P692
Aphis gossypii, Citrus, Host indexing (plants), Plant disease transmission, Toxoptera aurantii, Tristeza (citrus), Virus diseases (plants).
Abstract: Through an extensive indexing program designed for detecting carriers of tristeza in Cyprus, 4 species of citrus were found to be infected. In spite of the rather wide distribution of infected trees, there appears to have been very little natural spread. This suggests that Aphis gossypii and Toxoptera aurantii are inefficient vectors.
- 18043-68**
FACTORS INFLUENCING AFLATOXIN ACCUMULATION IN PEANUT KERNELS AND THE ASSOCIATED MYCOFLORA. R E Pettit R A Taber
Appl Microbiol 16(8):1230-1234 REF
Aug 1968 448.3 AP5
Aflatoxin, Aspergillus flavus, Chromatography, Equipment, Fungus diseases (plants), Humidity, Peanuts, Temperature, Weather.
- 18044-68**
ANNALS OF THE PHYTOPATHOLOGICAL SOCIETY OF JAPAN. Phytopathol Soc Jap Ann 34(3):210 P

18045-68

May 1968 464.9 P562

Bacterial diseases (plants), Fungicides, Fungus diseases (plants), Phytopathology, Virus diseases (plants).

18045-68

CYTOCHROME OXIDASE AND MITOCHONDRIAL PROTEIN IN EXTRACTS OF LEAVES OF NICOTIANA GLUTINOSA L. INFECTED WITH TOBACCO MOSAIC VIRUS.

W S Pierpoint

J Expt Bot 19(59):264-275 REF

May 1968 450 J8224

Culture media, Cytochrome oxidase, Extracts, Leaves, Mitochondria, Nicotiana glutinosa, Proteins, Virus diseases (plants).

18046-68

FUNGISTATIC CONSTITUENTS IN CITRUS VARIETIES RESISTANT TO THE MAL-SECCO DISEASE.

J Pinkas D Lavie M Chorin

Phytochemistry 7(2):169-174

Feb 1968 450 P5622

Biological assay, Deuterophoma tracheiphila, Flavones, Fungicides, Mal secco (citrus), Plant analysis, Plant biochemistry, Plant disease resistance.

18047-68

TOMATO BUSHY STUNT VIRUS ON TOMATO CROPS IN ARGENTINA.

R E Pontis O Gracia J M Feldman

Plant Dis Rep 52(9):676-677

Sep 1968 1.9 P69P

Bushy stunt (tomatoes), Culture media, Electron microscopy, Research, Serological tests, Tomatoes, Virus diseases (plants).

18048-68

CYTOKININ EFFECT OF BENZYLADENINE: INCREASE OF NUCLEIC ACID AND PROTEIN SYNTHESIS IN BEAN LEAVES.

B I Pozsar M El Hammady Z Kiraly

Nature 214(5085):273-274 REF

15 Apr 1967 472 N21

Beans, Benzyladenine, Kinetin, Leaves, Mosaic (tobacco), Nucleic acids, Plant disease resistance, Plant metabolism, Plant physiology, Proteins, Virus diseases (plants).

18049-68

REPRODUCTION OF THE COCONUT LETHAL YELLOWING SYNDROME BY MECHANICAL INOCULATION OF YOUNG SEEDLINGS.

W C Price A P Martinez D A Roberts

Phytopathology 58(5):593-596 REF

May 1968 464.8 P56

Coconuts, Lethal yellowing (coconuts), Plant diseases, Seedlings.

18050-68

TOLERANCE TO BARLEY YELLOW DWARF IN WINTER OATS.

C O Qualset

Plant Dis Rep 51(11):908-910 REF

Nov 1967 1.9 P69P

Oats, Plant disease resistance, Plant hardiness, Virus diseases (plants), Yellow dwarf (barley), Yellow dwarf (oats).

18051-68

STUDIES ON THE PATHOGEN AND VECTOR OF DUTCH ELM DISEASE. A. MORPHOGENESIS IN CERATOCYSTIS ULMI. B. CHEMICALS STIMULATING FEEDING BY SCOLYTUS MULTISTRIATUS. II. AN IMPROVED METHOD FOR THE ISOLATION OF A TOXIC METABOLITE FROM RHIZOCTONIA LEGUMINICOLA.

D P Rainey

Diss Abstr Sect B 28(11):4419B

May 1968 Z5055.U49D53

Biochemistry, Ceratocystis ulmi, Feed, Fungus diseases (plants), Insect vectors, Metabolites, Rhizoctonia leguminicola, Scolytus multistriatus, Stimulants.

18052-68

THE PATHOGENICITY OF SECONDARY AND TERTIARY BASIDIOSPORES OF CRONARTIUM FUSIFORME.

R W Roncadori

Phytopathology 58(5):712-713 REF

May 1968 464.8 P56

Basidiospores, Cronartium fusiforme, Microorganisms, Pinus, Reproduction, Spore germination.

18053-68

A LEAF BLIGHT OF CORN (ZEA MAYS) INCITED BY FUSARIUM MONILIFORME. (ABSTRACT).

E Schieber A S Muller

Phytopathology 58(5):554

May 1968 464.8 P56

Corn, Fusarium moniliforme, Leaf blight (corn), Leaves, Plant diseases. Abstract of meeting of Caribbean Division of American Phytopathological Society, 1967

18054-68

PRELIMINARY STUDIES ON PHYLLACHORA MAYDIS AFFECTING CORN IN CENTRAL AMERICA. (ABSTRACT).

E Schieber

Phytopathology 58(5):554

May 1968 464.8 P56

Corn, Phyllachora maydis, Plant disease resistance, Tar spot (corn). Abstract of meeting of Caribbean Division of American Phytopathological Society.

18055-68

SUSCEPTIBILITY OF WEAKENED COTTONWOOD STEMS TO FUNGI ASSOCIATED WITH BLACKSTEM.

D F Schoeneweiss

Plant Dis Rep 51(11):933-935

Nov 1967 1.9 P69P

Agricultural research, Canker (populus deltoides), Canker (populus trichocarpa), Cytospora chrysosperma, Fungus diseases (plants), Populus deltoides, Populus trichocarpa, Tree diseases.

18056-68

FACTORS AFFECTING THE INFECTION OF BLACK SPRUCE (PICEA MARIANA MILL.) TRANSPLANTS BY CYLINDROCLADIUM SCOPARIUM.

H Scholten

Diss Abstr Sect B 28(8):3131B

Feb 1968 Z5055.U49D53

Cylindrocladium scoparium, Fungus diseases (plants), Loam, Picea mariana, Transplanting, Trizone.

18057-68

STAND LOSS OF SMALL GRAINS IN FLORIDA.

D Sechler H H Luke

Plant Dis Rep 51(11):919-922

Nov 1967 1.9 P69P

Barley, Helminthosporium sorokinianum, Oats, Plant disease control, Pythium aphanidermatum, Rye, Seed treatment, Soil temperature, Wheat.

18058-68

OCCURRENCE OF AGROPHRON MOSAIC VIRUS IN MONTANA.

J F Shepard

Plant Dis Rep 52(2):139-141 REF

Feb 1968 1.9 P69P

Cytoplasm, Leaves, Morphology, Serological tests, Tissues, Virus diseases (plants), Wheat.

Abstract: Susceptible hosts were Agropyron repens, agropyron elongatum, and Triticum aestivum 'cheyenne'. hosts of low susceptibility were Agropyron trachycaulum and elymus canadensis.

18059-68

CONDITIONS FOR INFECTION OF CELERY BY SEPTORIA APICOLA.

J E Sheridan

Plant Dis Rep 52(2):142-145

Feb 1968 1.9 P69P

Celery, Distilled water, Environment, Fungus diseases (plants), Greenhouses, Laboratories, Leaves, Septoria apiicola, Spraying.

18060-68

THE FREQUENCY OF PENETRATION OF EPIDERMAL STRIPS AND INTACT WHEAT LEAVES BY PUCCINIA GRAMINIS F. SP. TRITICI.

W A Shipton J F Brown

Phytopathology 58(5):704-705

May 1968 464.8 P56

Frequency distribution, Leaves, Plant diseases, Puccinia graminis tritici, Uredospores, Wheat.

18061-68

THE EFFECT OF DECOMPOSING ORGANIC MATTER ON ZINC LEVEL IN SOIL AND PLANTS.

K S M Shoukry

Diss Abstr Sect B 28(8):3127B

Feb 1968 Z5055.U49D53

Beans, Biological assay, Decomposition, Plant nutritional deficiencies, Soil chemistry, Zinc.

18062-68

CHEMICAL CONTROL OF CORN HEAD SMUT.

W R Simpson H S Fenwick

Plant Dis Rep 52(9):726-727

Sep 1968 1.9 P69P

Chemical control (plant diseases), Crop yields, Head smut (corn), Research, Seeds, Sphaeclothea reiliana, Spraying.

18063-68

CYTOMORPHOLOGICAL FEATURES OF TMV-INFECTED TOBACCO CALLUS CELLS IN TISSUE CULTURE.

M Singh A C Hildebrandt

Phyton (vicente Lopez) 24(1):31-33

May 1967 450 P567

Callus (plants), Mitochondria, Mosaic (tobacco), Plant morphology, Tissue culture, Virus diseases (plants).

18064-68

PATHOGENIC AND CULTURAL VARIATION IN PHYTOPHTHORA NICOTIANAE VAR PARASITICA FROM GREENHOUSE PLANTS.

B S Siradhana C W Ellett A F Schmitthenner

Phytopathology 58(5):718-719

May 1968 464.8 P56

Antirrhinum, Greenhouse culture, Parasitism, Peperomia obtusifolia, Phytophthora parasitica nicotianae, Plant diseases, Saintpaulia, Sinningia, Tomatoes.

18065-68

ADDITIONAL INFORMATION ON THE PATHOGENICITY OF SCLERODERRIS LAGERBERGII.

E Smerlis

Plant Dis Rep 52(9):738-739

Sep 1968 1.9 P69P

Fungus diseases (plants), Injections, Mortality, Research, Scleroderris lagerbergii, Tree diseases, Trees.

18066-68

ALTERATIONS IN THE AUXIN LEVELS OF RESISTANT AND SUSCEPTIBLE HOSTS INDUCED BY THE CURLY TOP VIRUS.

S H Smith S R McCall J H Harris

Phytopathology 58(5):575-577

May 1968 464.8 P56

Beets, Curly top (beets), Curly top (tomatoes), Kidney beans, Plant disease resistance, Plant hormones, Plant regulators, Tomatoes, Virus diseases (plants).

18067-68

CROSS PROTECTION BETWEEN A PLANT VIRUS AND POTATO PSYLLID YELLOWS.

R Staples

J Econ Entomol 61(5):1378-1380 REF

15 Oct 1968 421 J822

Feeding, Insect vectors, Nymphs, Paratuberculosis, Potatoes, Psylla, Temperature, Virus diseases (plants).

18068-68

THE INFLUENCE OF CROP-ROTATION ON THE ATTACK OF CARROTS BY MELDIDOGYNE HAPLA CHITW. AND SYMPTOM FORMATION. (GE)

V W Stein E Richter

Z Pflanzenkrankh (pflanzenschutz) Pflanzenschutz 75(2):93-98

Feb 1968 464.8 Z3

Carrots, Crop rotation, Meloidogyne hapla, Plant nematodes, Potatoes, Roots. English summary

18069-68

A COMPARATIVE NUTRITIONAL STUDY OF ALTERNARIA RAPPHANI, A. BRASSICAE, AND A. BRASSICOLA WITH SPECIAL REFERENCE TO A. RAPPHANI.

R A Taber T C Vanterpool W A Taber

Phytopathology 58(5):609-616 REF

May 1968 464.8 P56

Alternaria brassicae, Alternaria brassicicola, Alternaria raphani, Culture media, Nutrition.

18070-68

EFFECTS OF NEMATODE EXTRACTION METHOD, SOIL MIXTURE, AND NEMATODE NUMBERS ON THE TRANSMISSION OF TOBACCO RINGSPOT VIRUS BY XIPHINEMA AMERICANUM.

D. Teliz

Nematologica 13(2):177-185 REF

1967 436.8 N342

Epidemiology, Plant nematodes, Ring spot (tobacco), Soil properties, Virus diseases (plants), Xiphinema americanum. English, german and spanish abstract

Abstract

18071-68

BACTERIAL CANKER OF TOMATO; INOCULATION LEVEL NEEDED FOR INFECTION.

B D Thyrt

Plant Dis Rep 52(9):741-743

Sep 1968 1.9 P69P

Bacterial canker (tomatoes), Cells, Corynebacterium michiganense, Mortality, Research, Seedlings, Tissues, Tomatoes.

18072-68

THE SUMMER BIOLOGY OF PUCCINIA STRIIFORMIS IN SOUTHEASTERN WASHINGTON. I. INDUCTION OF INFECTION DURING THE SUMMER.

J C Tu W Hendrix

Plant Dis Rep 51(11):911-914

Nov 1967 1.9 P69P

Infectious diseases, Parasitism, Plant temperature, Puccinia striiformis, Stripe rust (wheat), Urediospores.

18073-68

STUDIES OF THE RESISTANCE OF LOCAL APPLE VARIETIES TO SCAB (VENTURIA INAEQUALIS (CKE.) WINT.) UNDER CLIMATIC CONDITIONS OF CENTRAL ANATOLIA. (TU)

K Turkoglu U Erkal

Bitki Koruma Bulteni 7(2):78-89

1967 464.8 B542

Apples, Climate, Fungus diseases (plants), Scab (apples), Venturia inaequalis. French summary.

18074-68

ULTRASTRUCTURE OF HOST AND PARASITE IN COMPATIBLE AND INCOMPATIBLE INTERACTIONS OF ZEA MAYS L. WITH PUCCINIA SORGHII SCHW.

C G Van Dyke

Diss Abstr Sect B 29(2):444B

Aug 1968 Z5055.U49D53

Anatomy, Corn, Fungus diseases (plants), Parasitism, Puccinia sorghi.

18075-68

EFFECT OF MCPA ON LETTUCE PRE-INOCULATED WITH LETTUCE MOSAIC VIRUS.

J M Way

Plant Pathol 17(2):75-77

Jun 1968 464.8 P692

Injections, Mosaic (lettuce), Plant physiology, Research, Spraying, Virus diseases (plants).

18076-68

GENETICS OF REACTION TO PUCCINIA SORGHII IN TEN CORN INBRED LINES FROM AFRICA AND EUROPE.

D R Wilkinson A L Hooker

Phytopathology 58(5):605-608

May 1968 464.8 P56

Corn, Genes, Plant breeding, Plant disease resistance, Plant genetics, Puccinia sorghi.

18077-68

NEW FUNGICIDES EFFECTIVE FOR PECAN SCAB CONTROL IN GEORGIA.

R E Worley S A Harmon

Plant Dis Rep 52(2):108-109

Feb 1968 1.9 P69P

Chemical control (plant diseases), Fungicides, Fungus diseases (plants), Fusicladium effusum, Scab (pecans), Spraying, Tree diseases.

18078-68

CULTURAL AND PATHOGENICITY STUDIES OF INDUCED VARIANTS OF BEAN AND PEA ROOT ROT FUSARIUM SPECIES.

S M Yang D J Hagedorn

Phytopathology 58(5):639-643 REF

May 1968 464.8 P56

Beans, Culture media, Fusarium, Fusarium solani, Peas, Plant diseases, Root rot (beans), Root rot (peas).

18079-68

ROOT ROT AS A CAUSE OF RED CLOVER DECLINE IN LEYS IN FINLAND.

A Ylimaki

Ann Agr Fenn 6(1, SUP):7-59 MAP, REF

1967 20 AN7

Fungus diseases (plants), Red clover, Root rot (red clover).

Abstract

18080-68

ON LIGHT-SENSITIVITY IN GERMINATING UREDOSPORES OF WHEAT BROWN RUST.

J C Zadoks L J M Groenewegen

Neth J Plant Pathol 73(3):83-102

1967 464.8 T44

Brown rust (wheat), Fungus diseases (plants), Light, Plant physiology, Puccinia recondita, Spore germination, Temperature, Wheat.

Abstract: Experiments consisted of 3 phases: Spore production, spore storage, spore germination. The light-inhibited spores germinate rapidly after being placed in darkness with germination rate little affected by duration of light exposure. After a few hours of light exposure a gradually increasing proportion of light-inhibited spores is killed, which means that the reversibility of the light-inhibition is limited.

18081-68

RECENT SPREAD AND PRESENT DISTRIBUTION OF FIRE BLIGHT IN THE WORLD.

T Van Der Zwet

Plant Dis Rep 52(9):698-699

Sep 1968 1.9 P69P

Erwinia amylovora, Geography, Pseudomonas syringae, Reports, Research.

ARTHROPODS

18082-68

SYSTEMATIC INSECTICIDE SEED TREATMENT TESTS ON SOYBEANS. BOWLING, C. C.

J Econ Entomol 61(5):1224-1227

15 Oct 1968 421 J822

Biochemistry, Chemical control (insects), Diabrotica undecimpunctata howardi, Insect pests, Insecticide application, Insecticides, Plant physiology, Seed germination, Seedlings, Soybeans.

18083-68

ALUMINUM FOIL AND WHITE POLYETHYLENE MULCHES TO REPEL APHIDS AND CONTROL WATERMELON MOSAIC.

W C Adlerz P H Everett

J Econ Entomol 61(5):1276-1279 REF

15 Oct 1968 421 J822

Aluminum foil, Aphididae, Chemical control (insects), Insect pests, Insect repellents, Insect traps, Insect vectors, Mosaic (watermelons), Mulches, Polyethylene, Virus diseases (plants).

18084-68

SURVIVAL OF THE BALSAM WOOLLY APHID ON ABIES LOGS.

M D Atkins T A D Woods

Can Entomol 100(4):412-420 MAP

Apr 1968 421 C16

Abies grandis, Chermes piceae, Insect biology, Insect dissemination, Insect pests, Logs, Parasitism, Saline water.

18085-68

NATURAL ACQUISITION COMPARED WITH MECHANICAL INOCULATION OF SIX-SPOTTED LEAFHOPPERS FOR TRANSMISSION OF THE OAT BLUE DWARF VIRUS. (ABSTRACT).

E E Bantari R J Zeyen

Phytopathology 58(8):1042

Aug 1968 464.8 P56

Blue dwarf (oats), Cicadellidae, Injections, Insect vectors, Oats, Virus diseases (plants).

18086-68

CONTROL OF THE BIRCH LEAF MINOR WITH DISULFOTON.

H H Cheng E J LeRoux

Can Entomol 100(4):350-357 REF

Apr 1968 421 C16

Betula, Biochemistry, Chemical control (insects), Disulfoton, Dosage, Fenusa pusilla, Insecticide application, Insecticides, Leaves, Population.

18087-68

EFFECTS ON POPULATIONS OF CORN ROOT-WORMS OF ALDRIN RESIDUES IN SOIL FOUR YEARS AFTER APPLICATION.

H C Chiang R S Raros

J Econ Entomol 61(5):1204-1208

15 Oct 1968 421 J822

Aldrin, Biochemistry, Corn, Crop yields, Diabrotica longicornis, Diabrotica virgifera, Insecticide residues, Parathion, Population, Soils.

18088-68

BLACK VINE WEEVIL LARVAL DAMAGE TO CONCORD GRAPE ROOTS AT DIFFERENT POPULATION DENSITIES.

W W Cone

J Econ Entomol 61(5):1220-1224

15 Oct 1968 421 J822

Brachyrhinus sulcatus, Grapes, Insect cages, Insect eggs, Insect pests, Larvae, Plant injuries, Population, Roots.

18089-68

APHID VECTORS OF BARLEY YELLOW DWARF VIRUS IN BLACKLIGHT TRAPS IN EASTERN UNITED STATES.

B F Coon

J Econ Entomol 61(5):1279-1282

15 Oct 1968 421 J822

Aphididae, Insect flight, Insect vectors, Light traps, Macrosiphum avenae, Rhopalosiphum maidis, Rhopalosiphum padi, Schizaphis graminum, Tables (data), Virus diseases (plants), Yellow dwarf (barley).

18090-68

STUDIES ON A BIOLOGICAL AND A CHEMICAL METHOD OF CONTROLLING THE DARK RICE FIELD MOSQUITO IN LOUISIANA.

18091-68

B R Craven C D Steelman

J Econ Entomol 61(5):1333-1336 REF

15 Oct 1968 421 J822

Biochemistry, Biological control (insects), *Gambusia affinis*, Insect pests, Insecticides, Population, *Psorophora confinis*, Rice, Tables (data).

18091-68

FURTHER EVALUATION OF ACARICIDES FOR BROWN WHEAT MITE CONTROL ON WINTER WHEAT IN KANSAS, 1963-65.

L J DePew

J Econ Entomol 61(5):1171-1174

15 Oct 1968 421 J822

Acaricides, Biochemistry, Chemical control (insects), Crop yields, Pesticide application, *Petrobia latens*, Population, Research, Seedlings, Spraying, Tables (data), Wheat.

18092-68

CEREAL LEAF MINER IN THE SOUTH-EAST REGION.

C M G Duthoit

Plant Pathol 17(2):61-65

Jun 1968 464.8 P692

Agromyzidae, Parasitic insects, Plant injuries, Research, Surveys.

18093-68

RESIDUES OF DIAZINON IN CARROTS AFTER TREATMENT AGAINST CYCLODIENE-RESISTANT CARROT RUST FLY.

D G Finlayson I H Williams H G Fulton

J Econ Entomol 61(5):1174-1176 REF

15 Oct 1968 421 J822

Assay, Carrots, Chemical control (insects), Cycloidiene, Diazinon, Dosage, Insecticide application, Insecticide residues, Plant hardiness, *Psila rosae*.

18094-68

EFFECTS OF EARLY-, MID-, AND LATE-SEASON INFESTATIONS OF TWO-SPOTTED SPIDER MITES ON THE YIELD OF COTTON.

R E Furr T R Perimner

J Econ Entomol 61(5):1446-1447

15 Oct 1968 421 J822

Cotton, Crop yields, Insect control, Insect pests, Leaves, Plant injuries, Temperature, Tetranychus, Weather.

18095-68

TESTS WITH INSECTICIDES FOR THE CONTROL OF RESISTANT MYZUS PERSICAE (SULZER) ON YEAR-ROUND CHRYSANTHEMUMS.

H J Gould

Plant Pathol 17(2):88-94

Jun 1968 464.8 P692

Carbamates, Chemicals, Chrysanthemum, Insecticides, *Myzus persicae*, Organic compounds, Pesticides, Phosphorus, Research, Spraying, Toxicology.

18096-68

A BIOASSAY TECHNIQUE FOR SCREENING FEEDING STIMULANTS FOR LARVAE OF TOBACCO BUDWORM.

A A Guerra T N Shaver

J Econ Entomol 61(5):1398-1399

15 Oct 1968 421 J822

Attractants, Biological assay, Corn, Cotton, Feeding, *Heliothis virescens*, Insect pests, Larvae, Plant extracts, Research, Water.

18097-68

SURVIVAL OF RHOPALOSIPHUM PADI IN STORED GRAIN DURING COLD WEATHER.

A M Harper P E Blakeley

J Econ Entomol 61(5):1455

15 Oct 1968 421 J822

Cold, Grain, Research, *Rhopalosiphum padi*, Storage, Temperature, Weather.

18098-68

THE USE OF MENAZON SEED DRESSING TO DECREASE SPREAD OF VIRUS YELLOWS IN SUGAR-BEET ROOT CROPS.

G D Heathcote

Ann Appl Biol 62(1):113-118

Aug 1968 442.8 AN72

Aphididae, Insect vectors, Insecticides, Menazon, Roots, Seed treatment, Sugar beets, Virus diseases (plants), Yellows (sugar beets).

18099-68

LACK OF CYTOPLASMIC INHERITANCE OF ALFALFA RESISTANCE TO THE SPOTTED ALFALFA APHID.

S D Kindler R Staples

J Econ Entomol 61(5):1455-1456

15 Oct 1968 421 J822

Alfalfa, Breeding, Cytoplasm, Immunity, Insect pests, Plant genetics, Plant hardiness, Research, *Therioaphis maculata*.

18100-68

OVIPOSITION PREFERENCES OF WESTERN CORN ROOTWORMS FOR VARIOUS SOIL SURFACE CONDITIONS.

V M Kirk C O Calkins F J Post

J Econ Entomol 61(5):1322-1324

15 Oct 1968 421 J822

Diabrotica virgifera, Experimental insects, Insect pests, Ovulation, Plant injuries, Research, Soils.

18101-68

STUDIES OF THE INSECT COMPLEX AFFECTING SEED PRODUCTION OF PONDEROSA PINE IN CALIFORNIA.

T W Koerber

Diss Abstr Sect B 29(1):229B

Jul 1968 Z5055.U49D53

Insect control, Insect pests, *Pinus ponderosa*, Research, Seedlings, Tree injuries.

18102-68

ISOLATION AND ELECTRON MICROSCOPY OF POTATO LEAFROLL VIRUS FROM PLANTS.

M Kojima E Shikata M Sugawara D Murayama

Virology 35(4):612-615 REF

Aug 1968 448.8 V81

Electron microscopes, Insect vectors, Leaf roll (potatoes), *Myzus persicae*, Potatoes, Virus diseases (plants).

18103-68

INTRODUCTION TO BACILLUS THURINGIENSIS AND ITS USES. (GE)

A Krieg

Berlin Biol Bundesanst Land-forstwirtschaft Mitt 125,87P REF

Nov 1967 410.9 G31M

Bacillus anthracis, *Bacillus cereus*, *Bacillus thuringiensis*, Biochemistry, Morphology, Pest control, Taxonomy.

18104-68

RESISTANCE IN BERMUDAGRASS TO THE FALL ARMYWORM.

D B Leuck C M Taliaferro G W Burton R L

Burton M C Bowman

J Econ Entomol 61(5):1321-1322

15 Oct 1968 421 J822

Benzoxazolinone, *Cynodon dactylon*, Insect pests, Larvae, Plant extracts, Plant hardiness, *Spodoptera frugiperda*.

18105-68

INSECT PESTS OF NIGERIAN CROPS.

J L Libby

Wis Agr Exp Sta Bull 269,69P.

Feb 1968 100 W75 (1)

Crop yields, Insect pests, Plant protection.

18106-68

IMPROVED TECHNIQUE TO CONTROL SHOT HOLE BORERS AND BARK BEETLES.

R A Malik

Plant Protect Bull 18(1):29-30

1966 421 P69

Insect control, Insect pests, Plant protection, Preventive medicine, Scolytidae, *Scolytus rugulosus*, Trees.

18107-68

REINFESTATION OF FOREST SITES BY THE TEXAS LEAF-CUTTING ANT.

W F Mann

J Econ Entomol 61(5):1460-1461

15 Oct 1968 421 J822

Atta texana, Biochemistry, Chemical control (insects), Forests, Fumigation, Insect pests, Methyl bromide, Research, Tree injuries.

18108-68

OCCURRENCE OF FIBER CONTAINING FLUORESCENT SPOTS ASSOCIATED WITH ASPERGILLUS FLAVUS BOLL ROT IN THE U. S. COTTON CROP OF 1967.

P B Marsh M E Simpson

Plant Dis Rep 52(9):671-674

Sep 1968 1.9 P69P

Aspergillus flavus, Cotton, Geography, Insect dissemination, Research, Surveys.

18109-68

ATTEMPTS AT COMBATING OYSTERSHELL SCALE, LEPIDOSAPHES ULMI (L.), ON APPLE TREES IN ORCHARDS OF QUEBEC. (FR)

B Parent D Pitre

Phytoprotection 49(1):26-37 REF

Feb 1968 464.8 P566

Apples, Ethion, Insecticides, *Lepidosaphes ulmi*, Oils, Plant injuries, Plant protection, Trees. English summary

18110-68

LOSS OF PHORATE FROM A GRANULAR FORMULATION APPLIED IN THE SOIL.

R S Patterson W A Rawlins

Fla Entomol 51(3):143-150

Sep 1968 420 F662

Humidity, Insecticide residues, Phorate, Plant translocation, Plants, Research, Soils, Toxicology, Weather.

18111-68

WESTERN CORN ROOTWORM EGG DISTRIBUTION AND ADULT EMERGENCE UNDER TWO CORN TILLAGE SYSTEMS.

K P Pruess G T Weekman B R Somerhalder

J Econ Entomol 61(5):1424-1427

15 Oct 1968 421 J822

Corn, *Diabrotica virgifera*, Insect dissemination, Insect eggs, Planting, Seedlings, Soils, Tillage, Zoogeography.

18112-68

THE TOLERANCE OF IMPORTED COMMODITIES TO FUMIGATION WITH METHYL BROMIDE.

H Roth H H Richardson

J Econ Entomol 61(5):1435-1437

15 Oct 1968 421 J822

Biochemistry, Broadbeans, Chemical control (insects), Dosage, Foreign trade, Fumigation, Insecticides, Methyl bromide, Muskmelons, Research, Temperature, *Tribolium confusum*.

18113-68

STUDIES ON HYDROGEN PHOSPHIDE AGAINST THE RED FLOUR BEETLE IN A COLUMN OF PADDY.

G Rout S C Parida

J Econ Entomol 61(5):1145-1147

15 Oct 1968 421 J822

Aluminum, Biochemistry, Cotton, Dosage, Fumigants, Insect pests, Phosphine, Rice, Tables (data), *Tribolium castaneum*.

18114-68

A MEDIUM FOR LABORATORY REARING OF THE PEACH TREE AND LESSER PEACH TREE BORERS.

W G Russell

J Econ Entomol 61(5):1450-1451

15 Oct 1968 421 J822

Experimental insects, Feeding, Insect pests, Insect rearing, Larvae, Plant injuries, *Sanninoidea exilis*, *Synanthedon pictipes*.

18115-68

CONTROL OF MUSTARD APHID (LIPAPHIS ERYSIMI KALT.) BY SYSTEMIC INSECTICIDES.

M L Saini K S Chhabra

Plant Protect Bull 18(2):4-8

1966 421 P69

Aphididae, Brassica, Crop yields, Insecticides, Lipaphis erysimi, Plant protection.

18116-68

A NEW MOSAIC DISEASE OF BRINJAL (SOLANUM MELONGENA L.).

M L Seth S P Raychaudhuri R Nath

Phytopathol Z 59(4):385-389 REF

Aug 1967 464.8 P562

Aphis craccivora, Aphis gossypii, Eggplant, Insect vectors, Mosaic (eggplant), Myzus persicae, Virus diseases (plants). German summary

18117-68

INTRODUCING AND ESTABLISHING THE NONINCLUSION VIRUS OF THE CITRUS RED MITE IN CITRUS GROVES.

J G Shaw D L Chambers H Tashiro

J Econ Entomol 61(5):1352-1355

15 Oct 1968 421 J822

Citrus, Epizootic diseases, Experimental insects, Greenhouse culture, Insect diseases, Insect rearing, Panonychus citri, Spraying, Viruses, Zoogeography.

18118-68

ATTACK OF THE BLACK TURPENTINE BEETLE ON ROOTS OF SLASH PINES.

R H Smith R J Kowal

J Econ Entomol 61(5):1430-1432

15 Oct 1968 421 J822

Dendroctonus terebrans, Insect control, Insect pests, Mortality, Pinus elliottii, Research, Roots, Tree injuries.

18119-68

PECULIARITIES OF DEVELOPMENT AND HARMFUL ACTIVITY OF THE HESSIAN FLY (MAYETIOLA DESTRUCTOR SAY.) UNDER CONDITIONS OF IRRIGATION. (RUS.)

P I Susidko

Zool Zhur 46(12):1810-1814

Dec 1967 410 R92

Insect pests, Mayetiola destructor, Plant pest control, Wheat.

Abstract

18120-68

ROLE OF HOST PLANT IN PRODUCTION OF WINGED FORMS BY A GREEN STRAIN OF PEA APHID ACYRTHOSIPHON PISUM.

O R W Sutherland

Nature 216(5113):387-388

28 Oct 1967 472 N21

Acyrtosiphon pisum, Aphididae, Breeding, Broadbeans, Experimental insects, Insect rearing, Research, Seedlings, Wings (insects).

18121-68

ANTHOCORIS MELANOCERUS AS A PREDATOR OF THE GREEN PEACH APHID ON SUGAR BEETS AND BROCCOLI.

G Tamaki R E Weeks

Entomol Soc Amer Ann 61(3):579-584

May 1968 420 EN82

Anthocoris melanocerus, Broccoli, Insect control, Laboratories, Mortality, Myzus persicae, Ovipositors, Population statistics, Predaceous insects, Sugar beets.

18122-68

EGG DISTRIBUTION AS A FACTOR IN SUPPRESSING THE GREEN PEACH APHID BY PRUNING.

G Tamaki D M Powell

J Econ Entomol 61(5):1437-1439

15 Oct 1968 421 J822

Insect control, Insect eggs, Insect pests, Myzus persicae, Population, Pruning, Research, Zoogeography.

18123-68

CHEMICAL CONTROL OF THE SUNFLOWER MOTIL ON SUNFLOWERS.

G L Teetes N M Randolph

J Econ Entomol 61(5):1344-1347

15 Oct 1968 421 J822

Biochemistry, Chemical control (insects), Chemicals, Homococosa electellum, Insecticide application, Insecticides, Larvae, Sunflowers, Tables (data).

18124-68

CONSTITUENTS OF THE COTTON BUD. XIII. FURTHER STUDIES ON A NONPOLAR FEEDING STIMULANT FOR THE BOLL WEEVIL.

C Temple E C Roberts J Frye R F Struck Y F

Shealy A C Thompson J P Minyard P A Hedin

J Econ Entomol 61(5):1388-1393 REF

15 Oct 1968 421 J822

Anthonomus grandis, Chromatography, Cotton, Feeding, Lipids, Phoeophytins, Plant budding, Plant extracts, Research.

18125-68

RESISTANCE OF SOUTHERN PEAS TO THE COWPEA CURCULIO.

J W Todd T D Canerday

J Econ Entomol 61(5):1327-1329

15 Oct 1968 421 J822

Breeding, Chalchodermus aeneus, Economic plants, Insect pests, Peas, Plant hardiness, Plant injuries.

18126-68

WITH PESTS IN THE LUGGAGE. (SW.)

B Tunblad

Swed Stat Vaxtskyddsanst Vaxtskyddsnotiser 31(5-6):91

1967 464.9 SW3V

Diaspis echinocacti, Opuntia.

18127-68

MORTALITY STAGING OF DOMINANT LETHALS INDUCED IN THE F1 GENERATION OF SUGARCANE BORER; DIATRAEA SACCHARALIS (F.).

D W Walker V Quintana-Muniz

Radiat Res 36(1):138-143

Oct 1968 334.8 R11

Diatraea saccharalis, Embryology, Irradiation, Mortality, Sugarcane.

18128-68

CONTROL OF THE ELM LEAF BEETLE IN ARIZONA.

G P Wene J N Roney S Stedman

J Econ Entomol 61(5):1180-1182

15 Oct 1968 421 J822

Bidrin, Biochemistry, Chemical control (insects), Dosage, Foliar application, Injections, Insect pests, Insecticides, Oxydemetonmethyl, Pyrrhalta luteola, Tree injuries, Ulmus.

18129-68

THE COLUMBIAN TIMBER BEETLE, CORTHYLUS COLUMBIANUS (COLEOPTERA: SCOLYTIDAE). VIII. ARTIFACTS AND CHARACTERISTICS OF THE HOST TREE.

W B White R L Giese

J Econ Entomol 61(5):1400-1406 REF

15 Oct 1968 421 J822

Acer rubrum, Acer saccharinum, Corthylus columbianus, Insect behavior, Insect outbreaks, Insect pests, Plant physiology, Population, Research, Statistical analysis.

18130-68

PHYSIOLOGIC RACE CHANGES IN BARLEY MILDEW 1964-67.

M S Wolfe

Plant Pathol 17(2):82-87

Jun 1968 464.8 P692

Erysiphe graminis, Mildew (barley), Physiology, Plant diseases, Research, Sampling (statistics), Surveys.

NEMATODES

18131-68

EFFECT OF TEMPERATURE AND VARIETY ON NEMATODE DEVELOPMENT AND GALL PRODUCTION ON SOYBEANS INFECTED WITH MELOIDOGYNE INCOGNITA ACRITA. (ABSTRACT).

W E Bryant T D Wyllie

Phytopathology 58(8):1045

Aug 1968 464.8 P56

Meloidogyne incognita, Morphology, Nematodes, Plant galls, Soybeans, Temperature.

18132-68

THE INCREASED ATTACK OF DITYLENCHUS DIPSACI ON ONION CAUSED BY SOME FUNGICIDES.

M W Brzeski W Macias

Nematologica 13(2):322

1967 436.8 N342

Ditylenchus dipsaci, Fungicides, Onions, Plant nematodes.

18133-68

ATTEMPTED CULTIVATION OF NEMATODE CELLS. (ABSTRACT).

T Chen H Hirumi K Maramorosch

Phytopathology 58(8):1046-1047

Aug 1968 464.8 P56

Alfalfa, Cells, Nematodes, Plant protection, Pratylenchus penetrans.

18134-68

INTERACTIONS OF APHELENCHUS AVENAE AND SOME NEMATODETRAPPING FUNGI IN DUAL CULTURE.

R C Cooke D Pramer

Phytopathology 58(8):659-661

May 1968 464.8 P56

Aphelenchus avenae, Balance of nature, Competition, Culture media, Fungi, Nematode-trapping fungi, Nematodes.

18135-68

THE BARLEY ROOT-KNOT NEMATODE IN ILLINOIS.

A M Golden D P Taylor

Plant Dis Rep 51(11):974-975

Nov 1967 1.9 P69P

Agrostis palustris, Barley, Poa pratensis, Taxonomy, Zoogeography.

18136-68

THE EFFECT OF ULTRA-VIOLET RADIATION ON THE INVASION, SURVIVAL AND FERTILITY OF LARVAE OF HETERODERA ROSTOCHIENSIS.

C D Green S Plumb

Nematologica 13(2):186-190

1967 436.8 N342

Heterodera rostochiensis, Heterodera schactii, Larvae, Physiology, Potatoes, Ultraviolet rays. English and German abstract

Abstract

18137-68

CHEMICAL CONTROL OF THE STEM NEMATODE DITYLENCHUS DIPSACI.

G D Griffin

Plant Dis Rep 51(11):973-974

Nov 1967 1.9 P69P

Alfalfa, Captan, Ditylenchus dipsaci, Nematocides, Seed treatment, Soil sterilization.

18138-68

QUANTITATIVE CHANGES IN ORGANIC ACIDS IN ROOTS AND LEAVES FROM GRAPEFRUIT SEEDLINGS INFECTED WITH RHADOPHOLUS SIMILIS.

R W Hanks A W Feldman

Phytopathology 58(5):706-707

May 1968 464.8 P56

Carboxylic acids, Citrus, Grapefruit, Leaves, Nematodes, Radoopholus similis, Roots, Seedlings.

18139-68

CONTROL OF ENDO- AND ECTO-PARASITIC NEMATODES IN TURF BY HOT-WATER TREATMENTS.

18140-68

C M Heald H D Wells

Plant Dis Rep 51(11):905-907

Nov 1967 1 9 P69P

Criconemoides, Hot water treatment (plants), Hypsoperine, Nematodes, Parasitism, Plant hardiness, Trichodorus, Tylenchorhynchus.

18140-68

THE YIELD OF POTATOES RESISTANT TO HETERODERA ROSTOCHIENSIS ON INFESTED LAND.

F G W Jones D M Parrott T D Williams

Nematologica 13(2):301-310 REF

1967 436.8 N342

Crop yields, Heterodera rostochiensis, Plant disease resistance, Plant nematodes, Potatoes. English and german abstract

Abstract

18141-68

STUDIES OF THE SUITABILITY OF CERTAIN HELIOTHIS SPP. AS A HOST FOR CARDIOCHILES NIGRICEPS VIERICK.

W J Lewis

Diss Abstr Sect B 29(2):646B

Aug 1968 Z5055.U49D53

Cardiochiles nigriceps, Heliothis, Parasitism, Research.

18142-68

ELECTRON MICROSCOPE STUDIES OF SOME CEPHALIC STRUCTURES OF XIPHINEMA AMERICANUM.

D Lopez-Abella F Jimenez-Millan F Garcia-Hidalgo

Nematologica 13(2):283-286 REF

1967 436.8 N342

Anatomy, Electron microscopes, Head, Morphology, Plant nematodes, Xiphinema americanum. English and german abstract

Abstract

18143-68

INJURY TO HETERODERA TABACUM BY HIGH SOIL TEMPERATURES. (ABSTRACT).

P M Miller

Phytopathology 58(8):1060

Aug 1968 464.8 P56

Eggplant, Heterodera tabacum, Nematodes, Plant injuries, Soil temperature, Tomatoes.

18144-68

THE INFLUENCE OF AN ORGANIC SOIL AMENDMENT ON INFECTIVITY AND REPRODUCTION OF TYLENCHULUS SEMIPENETRANS ON TWO CITRUS ROOT-STOCKS.

J H O'Bannon

Phytopathology 58(5):597-601 REF

May 1968 464.8 P56

Citrus, Lemons, Nematodes, Oranges, Parasitism, Peat, Roots, Seedlings, Soils, Tylenchulus semipenetrans.

18145-68

THE HOST-PARASITE RELATIONS AND ECOLOGY OF TRICHODORUS VIRULIFERUS ON APPLE ROOTS, AS OBSERVED FROM AN UNDERGROUND LABORATORY.

R S Pitcher

Nematologica 13(4):547-557 REF

1967 436.8 N342

Apples, Ecology, Plant injuries, Plant nematodes, Roots, Trichodorus viruliferus. English and german abstract

Abstract

18146-68

THE EFFECT OF AMINO ACID ANTIMETABOLITES ON FOUR NEMATODE SPECIES AND THEIR HOST PLANTS.

S K Prasad J M Webster

Nematologica 13(2):318-320

1967 436.8 N342

Amino acids, Antimetabolites, Physiology, Plant nematodes, Soil microorganisms, Tomatoes.

18147-68

EFFECT OF VARIETY AND FUMIGATION ON NEMATODE POPULATIONS IN OATS, WHEAT, AND RYE.

D T Sechler W B Tappan H H Luke

Plant Dis Rep 51(11):915-919 REF

Nov 1967 1 9 P69P

Nematocides, Nematodes, Oats, Plant pest control, Rye, Soil fumigation, Wheat.

18148-68

THE RELATIONSHIPS BETWEEN POPULATION INCREASE AND POPULATION DENSITY IN PLANT PARASITIC NEMATODES.

J W Seinhorst

Nematologica 13(4):481-492 REF

1967 436.8 N342

Ecology, Plant injuries, Plant nematodes, Population. English and german abstract

Abstract

18149-68

THREAD WORMS IN THE RHIZOSPHERE OF THE NORMAL COTTON AND OF THAT INFECTED WITH THE VERTICILLOUS COTTON WILT. (RUS)

I M Sudakova A V Stoyakov R V Mikulina

Zool Zhur 46(12):1758-1763

Dec 1967 410 R92

Cotton, Nematodes, Plant diseases, Plant ecology, Rhizosphere, Verticillium dahliae, Wilt (cotton).

Thread worms in the rhizosphere of non-wilt infected cotton are predominately of only two ecological groups, phytohelminths and devysaprobiont.

18150-68

PARASITISM OF TYLENCHUS EMARGINATUS ON CONIFER SEEDLING ROOTS AND SOME OBSERVATIONS ON THE BIOLOGY OF THE NEMATODE.

J R Sutherland

Nematologica 13(2):191-196

1967 436.8 N342

Coniferae, Plant nematodes, Roots, Seedlings, Tylenchus emarginatus. English and french abstract

Abstract

18151-68

EVALUATION OF SOME TAXONOMIC INDICES IN THE POTATO ROT NEMATODE DITYLENCHUS DESTRUCTOR THORNE, 1945. (RUS)

T N Teplokhova

Zool Zhur 47(1):42-48 REF

Jan 1968 410 R92

Ditylenchus destructor, Ditylenchus dipsaci, Plant nematodes, Statistical analysis, Taxonomy. English abstract

Abstract

18152-68

GAMMA IRRADIATION OF HETERODERA SCHACHTII.

J L Townshend

Nematologica 13(4):586-592 REF

1967 436.8 N342

Gamma rays, Heterodera schachtii, Physiology, Plant nematodes, Soil microorganisms. English and german abstract

Abstract

18153-68

PLANT-PARASITIC NEMATODES IN GRAPE AND RASPBERRY SOILS OF ONTARIO AND A COMPARISON OF EXTRACTION TECHNIQUES.

T L Townshend

Can Plant Dis Surv 47(3):83-86 REF

Sep 1967 464.9 C165

Grapes, Parasitism, Plant nematodes, Pratylenchus penetrans, Raspberries, Soil microorganisms, Xiphinema americanum.

Abstract: Of 8 species, only P. penetrans was harmful to raspberries.

18154-68

THE EFFECT OF ENVIRONMENT ON SEX DETERMINATION IN HETERODERA ROSTOCHIENSIS.

D L Trudgill

Nematologica 13(2):263-272

1967 436.8 N342

Heterodera rostochiensis, Larvae, Physiology, Plant nematodes, Potatoes, Sex determination. English and german abstract

Abstract

18155-68

THE INFLUENCE OF PLANT-GROWTH SUBSTANCES AND THEIR INHIBITORS ON THE HOST-PARASITE RELATIONSHIPS OF APHELENCHOIDES RITZEMABOSI IN CULTURE.

J M Webster

Nematologica 13(2):256-262 REF

1967 436.8 N342

Alfalfa, Aphelenchoides ritzema-bosi, Biochemistry, Plant growth inhibitors, Plant nematodes, Plant physiology. English and german abstract

Abstract

18156-68

FACTORS INFLUENCING THE POPULATION FLUCTUATION OF PRATYLENCHUS PENETRANS IN SOIL. III. HOST PLANT SPECIES.

K Wong J M Ferris

Phytopathology 58(5):662-665 REF

May 1968 464.8 P56

Nematodes, Onions, Population statistics, Potatoes, Pratylenchus penetrans, Roots, Soils.

WEEDS

18157-68

PREPLANTING TREATMENTS FOR WEED CONTROL IN CONNECTICUT SHADEGROWN TOBACCO.

J F Ahrens

Northeast Weed Contr Conf Proc 22:41

Jan 1968 79.9 N814

Benefin, Crop yields, Plant injuries, Spraying, Tobacco, Transplanting, Trifluralin, Weed control.

18158-68

EVALUATION OF WEED CONTROL TREATMENTS IN FIELD-GROWN TOBACCO.

W E Chappell

Northeast Weed Contr Conf Proc 22:41

Jan 1968 79.9 N814

Chemical control (weeds), Herbicides, Plant injuries, Soils, Spraying equipment, Tobacco, Weed control, Weeds.

18159-68

WEEDS IN AGRONOMIC CROPS. FIELD CORN, SOYBEANS.

R H Cole

Northeast Weed Contr Conf Proc 22:28-36

Jan 1968 79.9 N814

Chemical control (weeds), Corn, Crop yields, Fertilization (plants), Field crops, Herbicides, Plant injuries, Soybeans, Weeds.

18160-68

THE GROWTH, DEVELOPMENT AND CONTROL OF COMMON RAGWEED.

C T Dickerson R D Sweet

Northeast Weed Contr Conf Proc 22:48

Jan 1968 79.9 N814

Ambrosia artemisiifolia, Greenhouses, Growth factors, Photoperiodism, Research, Temperature, Weed control.

18161-68

LIGHT QUALITY EFFECTS ON GROWTH AND DEVELOPMENT RAGWEED.

S Dunn F S Adams A S Thomas E L Stevenson
Northeast Weed Contr Conf Proc 22:47

Jan 1968 79.9 N814

Ambrosia artemisifolia, Growth factors, Light, Research, Seedlings.

18162-68

GROWTH, DEVELOPMENT AND CONTROL OF WILD RADISH.

R L Feulner E M Rahn

Northeast Weed Contr Conf Proc 22:48

Jan 1968 79.9 N814

Growth factors, Herbicides, Photoperiodism, Raphanus raphanistrum, Temperature, Weed control.

18163-68

ON THE DISPERSAL OF THE BULBS OF OXALIS CERNUA THUNB. BY MOLE-RATS (SPALAX EHRENBERGI NEHRING).

J Galil

J Ecol 4(2):787-792

Nov 1967 450 J829

Bulbs, Oxalis cernua, Plant dissemination, Rodents, Spalax ehrenbergi, Weeds.

Abstract: Bulbs are dispersed by mole-rats, whose neglected caches later sprout. However caches in nest chambers are usually tended by the female mole-rats, which repeatedly bite off the young shoots, thus hindering development of the bulbs.

18164-68

ORNAMENTALS.

C Haramaki

Northeast Weed Contr Conf Proc 22:22-27

Jan 1968 79.9 N814

Chemical control (weeds), Herbicides, Nurseries, Ornamental plants, Plant injuries, Plant physiology, Soils, Transplanting, Weeds.

18165-68

FENCEROW WEED CONTROL MADE EASY.

E L Knake

Down Earth 23(4):2,32 SPRING

1968 381 D75

Biochemistry, Chemical control (weeds), Crops, D, 2,4-, Herbicides, Soils, Spraying, Weed control.

18166-68

EXTERMINATION OF EICHHORNIA AZUREA KUNTH, AGUAPE DE CORDAO, ON THE RIBEIRA RIVER BY MEANS OF HERBICIDE APPLICATIONS. (POR)

L Leiderman P Figueiredo

Biologico 33(6):121-125

Jun 1967 442.8 B529

Amitrole, D, 2,4-, Eichhornia, Herbicides, Paraquat, Weed control.

18167-68

FORAGE CROPS, SMALL GRAINS.

D L Linscott

Northeast Weed Contr Conf Proc 22(0):37-40

Jan 1968 79.9 N814

Crops, Herbicides, Legumes, Seedlings, Spraying, Weed control.

18168-68

VEGETABLE CROPS III. CUCUMBERS, WATERMELONS, CANTALOUPE, SQUASH.

E M Rahn

Northeast Weed Contr Conf Proc 22:9-11

Jan 1968 79.9 N814

Cantaloupes, Chemicals, Cucumbers, Greenhouses, Squash, Vegetables, Watermelons, Weed control, Weeds.

18169-68

CHEMICAL CONTROL OF NUTSEDGE (CYPERUS ROTUNDUS L.) AND THE METABOLISM OF 3,6-DICHLORO-O-ANISIC ACID (DICAMBA).

B R Ray

Diss Abstr Sect B 29(1):20B

Jul 1968 Z5055.U49D53

Biochemistry, Chemical control (weeds), Chemicals, Chromatography, Cyperus rotundus, Dicamba, Herbicides, Metabolites, Plant metabolism.

18170-68

AQUATIC WEEDS.

D N Riemer

Northeast Weed Contr Conf Proc 22:44-45

Jan 1968 79.9 N814

Aquatic weeds, Herbicides, Research, Weed control.

18171-68

TOBACCO.

O E Rud

Northeast Weed Contr Conf Proc 22:41

Jan 1968 79.9 N814

Field crops, Tobacco, Weed control, Weeds.

18172-68

FORESTRY.

R D Shipman

Northeast Weed Contr Conf Proc 22:42

Jan 1968 79.9 N814

Abies balsamea, Forestry, Herbicides, Weed control.

18173-68

VEGETABLE CROPS. IV. BEANS, SWEET CORN, TOMATOES, RHUBARB.

R D Sweet

Northeast Weed Contr Conf Proc 22:12-15

Jan 1968 79.9 N814

Beans, Chemical control (weeds), Corn, Herbicides, Rhubarb, Tomatoes, Weed control.

18174-68

HERBACEOUS ANNUAL AND PERENNIAL WEEDS.

J Vengris

Northeast Weed Contr Conf Proc 22:48

Jan 1968 79.9 N814

Ambrosia artemisifolia, Growth factors, Herbicides, Perennial plants, Portulaca oleracea, Raphanus raphanistrum, Weeds.

OTHER PESTS

18175-68

ALBERTA, 255,000 SQUARE MILES, FREE OF RATS.

Anonymous

Pest Contr 36(8):16

Aug 1968 449.8 EX8

Baits, Feed, Pest control, Public health, Rats, Waste disposal.

18176-68

FUMIGATION-AN EFFECTIVE METHOD OF RAT CONTROL IN KUTTANAD IN ALLEPPEY DISTRICT (KERALA).

S A Ebrahim

Plant Protect Bull 18(1):31-32

1966 421 P69

Fumigation, Pest control, Rats, Rice.

18177-68

ORGANISATION OF ANTI-RAT CAMPAIGNS.

S Singh

Plant Protect Bull 18(4):1-13

1968 421 P69

Crop yields, Dusting equipment, Environment, Organizations, Pest control, Population statistics, Rats, Research, Rodenticides.

18178-68

HYPERGLYCEMIA INDUCED BY 5-HYDROXYTRYPTAMIN IN ACHATINA FULICA (GASTROPOD MOLLUSCA). (FR)

Y Tiffon

Paris Soc Biol Compt Rend 161(7):1547-1548

31 Jan 1968 442.9 P21

Achatina fulica, Amines, Biochemistry, Hyperglycemia, Physiology, Snails.

LIVESTOCK PROTECTION

18179-68

EFFECTS OF HIGH GOSSYPOL COTTONSEED MEAL ON THE ELECTROCARDIOGRAM OF SWINE.

J E Albrecht A J Clawson L C Ulberg D H Smith

J Anim Sci 27(4):976-980 REF

Jul 1968 49 J82

Cottonseed meal, Electrocardiograms, Feeding, Gossypol, Swine.

18180-68

DISTRIBUTION OF MERCURY COMPOUNDS IN FISH AND BIRDS.

J Backstrom

Oikos (SUP.9):30

1967 410 O14

Absorption (biological), Agriculture, Antiseptics, Autoradiography, Birds, Feeding, Fish, Industry, Injections, Mercury compounds, Research.

18181-68

CORRECTION: HEMOPHILIA-LIKE DISEASE OF SWINE: CYTOGENETIC STUDIES.

R C Brown K W Cole C N Cornell K M Brinkhous

Amer J Vet Res 29(9):1732

Sep 1968 41.8 AM3A

Cytogenetics, Hemophilia, Swine.

18182-68

EFFECTS OF UREASE INHIBITORS ON SHEEP FED DIETS CONTAINING UREA.

A J Clifford J R Bourdette A D Tillman

J Anim Sci 27(4):1073-1080 REF

Jul 1968 49 J82

Chemurgy, Feeding, Research, Sheep, Urea, Urease.

18183-68

INFLUENCE OF NITRITE AND HYDROXYLAMINE ON PERFORMANCE AND VITAMIN A AND CAROTENE METABOLISM OF RUMINANTS.

G N Cunningham M B Wise E R Barrick

J Anim Sci 27(4):1067-1072 REF

Jul 1968 49 J82

Animal metabolism, Hydroxylamine, Methemoglobin, Nitrites, Rumen, Ruminants, Vitamin A.

18184-68

MYCOTIC ABORTION IN EWES PRODUCED BY ASPERGILLUS FUMIGATUS: PATHOLOGIC CHANGES.

S J Cysewski A C Pier

Amer J Vet Res 29(6):1135-1151 REF

Jun 1968 41.8 AM3A

Abortion, Animal diseases, Animal morphology, Aspergillus fumigatus, Histopathology, Injections, Mycology, Sheep, Tissues.

18185-68

INFLUENCE OF DIETARY VITAMIN A ON CHOLESTEROL METABOLISM OF CHICKENS.

P M Dua

Diss Abstr Sect B 28(8):3117B

Feb 1968 Z5055.U49D53

Animal metabolism, Blood serum, Carotenoids, Chickens, Cholesterol, Diet, Eggs, Liver, Retinoic acid, Thiouracil, Vitamin A.

18186-68

OLIGOSACCHARIDASES FROM MACRACANTHORHYNCHUS HIRUDINACEUS (ACANTHOCEPHALA) FROM SWINE.

T T Dunagan T M Yau

Compar Biochem Physiol 26(1):281

Jul 1968 444.8 C73

Chemicals, Extracts, Macracanthorhynchus hirudinaceus, Oligosaccharides, Research, Swine.

18187-68

TREATMENT FOR POISONING BY SLUG BAIT.

J D Hawkins

Vet Rec 83(10):258

07 Sep 1968 41.8 V641

Baits, Dogs, Mortality, Poisoning, Research, Slugs, Toxicology.

18188-68

OXALATE METABOLISM IN SHEEP AND ITS EFFECT ON THE ANION-CATION BALANCE.

L F James

Diss Abstr Sect B 28(8):3118B

Feb 1968 Z5055.U49D53

Alkalosis, Animal metabolism, Carbonates, Hydrogen-ion concentration, Ions, Nitrogen, Oxalates, Rumen.

18189-68

LEVELS OF 5 BETA-PREGNAN-3 ALPHA, 6 ALPHA-DIOL-20-ONE IN URINE AND ITS RELATIONSHIP TO OTHER METABOLITES OF PROGESTERONE IN URINE OF THE NON-PREGNANT DOMESTIC SOW.

P H Jones R E Erb

J Anim Sci 27(4):1054-1058 REF

Jul 1968 49 J82

Blood plasma, Chromatography, Extracts, Glucuronidase, Metabolites, Progesterone, Swine, Urine.

18190-68

COMPARISON OF METABOLITES OF PROGESTERONE-4-14C IN URINE FROM A NONPREGNANT DOMESTIC SOW.

P H Jones R E Erb

J Anim Sci 27(4):1049-1053 REF

Jul 1968 49 J82

Chromatography, Extracts, Glucuronidase, Hydrolysis, Metabolites, Progesterone Radioactivity, Swine.

18191-68

EFFECT OF AFLATOXIN ON SERUM PROTEIN FRACTIONS OF DAY-OLD DUCKLINGS.

I Nemeth S Juhasz

Acta Vet (budapest) 18(1):95-105

1968 41.8 AC83

Aflatoxin, Blood proteins, Ducklings, Electrophoresis, Gamma globulins, Immunology.

18192-68

RESPONSE OF BEEF COWS TO EXOGENOUS PROGESTERONE AND ESTRADIOL AT VARIOUS STAGES POSTPARTUM.

S Saiduddin M M Quevedo W D Foote

J Anim Sci 27(4):1015-1020

Jul 1968 49 J82

Cattle, Estradiol, Injections, Ovulation, Progesterone, Research.

18193-68

EFFECT OF ORGANO-PHOSPHORUS INSECTICIDES ON THE WARM BLOODED ANIMALS AND CURE THEREOF.

H Singh

Plant Protect Bull 18(4):27-35 REF

1966 421 P69

Biology, Diagnosis, Insecticides, Lethal factors, Mammals, Metabolism, Phosphorus, Research, Toxicology.

18194-68

THE EFFECT OF INTRAMAMMARY INFECTION DURING THE DRY PERIOD ON THE MILK PRODUCTION OF THE AFFECTED QUARTER AT THE START OF THE SUCCEEDING LACTATION.

A Smith F H Dodd F K Neave

J Dairy Res 35(2):287-290 REF

Jun 1968 44.8 J823

Animal physiology, Dairy cattle, Lactation, Mammary glands, Milk, Parturition.

18195-68

AVIRULENT MUTANT OF A STRAIN OF ORNITHOSIS AGENT OBTAINED BY GAMMA IRRADIATION.

J Strauss J Seeman

Amer J Vet Res 29(9):1837-1842 REF

Sep 1968 41.8 AM3A

Culture media, Gamma rays, Immunization, Injections, Irradiation, Lethal factors, Lyophilization, Mice, Ornithosis, Research.

18196-68

THE EFFECT OF EXPOSURE TO DIELDRIN ON AVOIDANCE RESPONSE EXTINCTION AND CONDITIONED HEART RATE IN SHEEP.

D E Sussman

Diss Abstr Sect B 28(11):4786B

May 1968 Z5055.U49D53

Biochemistry, Chlorine, Dieldrin, Heart, Heart rate, Hydrocarbons, Pesticides, Sheep.

18197-68

DETERMINATION OF CESIUM-137 AND RELATED SAMPLING PROBLEMS OF DAIRY CATTLE FEEDS, 1962-1967.

G M Ward J E Johnson D L Whelan

Ass Offic Anal Chem J 51(4):792-795 REF

Jul 1968 381 AS7

Cesium, Crops, Dairy cattle, Feed, Pastures, Radioactivity, Sampling (statistics), Spectrometry.

18198-68

MERCURY CONTENT IN FEATHERS OF SWEDISH BIRDS FROM THE PAST 100 YEARS.

T Westermark

*Oikos (SUP.9):*39-40

1967 410 O14

Absorption, Assay, Biochemistry, Birds, Feathers, Mercury compounds, Time, Viscera.

18199-68

METHYL MERCURY COMPOUNDS IN FISH.

G Westoo

*Oikos (SUP.9):*11-12

1967 410 O14

Chromatography, Fish, Immunity, Mercury compounds, Methyl, Organic compounds.

DISEASES

18200-68

CYSTIC OVARIAN DISEASE IN DAIRY CATTLE: WITH SPECIAL REFERENCE TO ITS TREATMENT USING A COMBINATION OF CHORIONIC GONADOTROPHIN AND PROGESTERONE.

Vet Rec 83(10):231-238

07 Sep 1968 41.8 V641

Animal diseases, Dairy cattle, Injections, Ovarian cysts, Progesterone.

18201-68

FURTHER STUDIES ON THE USE OF ERA RABIES VACCINE IN DOMESTIC ANIMALS.

M K Abelseth

Can Vet J 8(10):221-227

Oct 1967 41.8 R3224

Immunization, Livestock, Rabies virus, Research, Virus diseases (animals). French summary

18202-68

EXPERIMENTAL TREATMENT OF SUBCLINICAL PORCINE CASE OF TOXOPLASMA WITH SULFAMONOMETHOXINE AND PYRIMETHAMINE AND ITS INFLUENCE UPON HEMAGGLUTININATING ANTIBODY. (JA)

M Akita

Jap Vet Med Ass J 20(9):386-389

1967 41.9 J275

Animal diseases, Antibodies, Drugs, Pyrimethamine, Sulfameter, Swine, Therapeutics, Toxoplasmosis.

18203-68

BACTERIOLOGICAL STUDIES OF POULTRY LITTER FED TO LIVESTOCK.

D C Alexander J A J Carriere K A McKay

Can Vet J 9(6):127-131 REF

Jun 1968 41.8 R3224

Bacteria, Bedding (livestock), Feeding, Livestock diseases, Poultry, Research. French summary

18204-68

A SURVEY TO DETERMINE THE SALMONELLA CONTAMINATION RATE IN LIVESTOCK AND POULTRY FEEDS.

J N Allred J W Walker V C Beal F W Germaine

Amer Vet Med Ass J 151(12):1857-1860 REF

15 Dec 1967 41.8 AM3

Food contamination, Livestock, Salmonella, Salmonellosis.

Abstract

18205-68

DOES THE AGENT OF SCRAPIE REPLICATE WITHOUT NUCLEIC ACID.

T Alper W A Cramp D A Haig M C Clarke

Nature 214(5090):764-766 REF

20 May 1967 472 N21

Animal diseases, Irradiation, Mice, Nervous system, Nucleic acids, Proteins, Reproduction, Scrapie, Ultraviolet rays.

18206-68

EXPERIMENTAL COLIBACILLOSIS AND THE DEVELOPMENT OF CARRIES IN LAYING HENS.

W B Ardrey C F Peterson M Haggart

Avian Dis 12(3):505

Aug 1968 41.8 AV5

Animal diseases, Chickens, Escherichia coli, Injections, Oviducts, Research, Tissues.

18207-68

MICROFLORA ASSOCIATED WITH AGALACTIA SYNDROME OF SOWS.

C H Armstrong B E Hooper C E Martin

Amer J Vet Res 29(7):1401-1407 REF

Jul 1968 41.8 AM3A

Agalactia, Animal diseases, Flora, Microbiology, Microorganisms, Research, Swine.

18208-68

SEMINAL VESICULITIS SYNDROME: LESIONS IN GENITAL ORGANS OF YOUNG BULLS.

L Ball S Young E J Carroll

Amer J Vet Res 29(6):1173-1184 REF

Jun 1968 41.8 AM3A

Abnormalities, Cells, Correlation, Epididymis, Epithelial tumors, Inflammation, Reproductive organs, Seminal vesicles.

18209-68

SALMONELLA TYPHISUIS INFECTION IN MINNESOTA SWINE.

D M Barnes M E Bergeland

Amer Vet Med Ass J 152(12):1766-1770 REF

15 Jun 1968 41.8 AM3

Autopsies, Epizootic diseases, Salmonella, Swine.

Abstract: Epizootics of Salmonella typhusis infection in swine were investigated on 5 Minnesota premises. It seemed to be a primary pathogen and produced a progressive disease characterized clinically by emaciation, intermittent diarrhea, and on occasion by massive enlargement of the ventral cervical region.

18210-68

ANAPLASMA MARGINALE-INFECTIVITY IN SPLENECTOMIZED AND RADIATED RABBIT.

L B Belli

Diss Abstr Sect B 29(2):696B-697B

Aug 1968 Z5055.U49D53

Anaplasmosis, Animal diseases, Irradiation, Rabbits, Spleen.

18211-68

MYCOPLASMA MELEAGRIDIS ("N" STRAIN MYCOPLASMA - PLO): RELATIONSHIP OF AIR SAC LESIONS AND ISOLATIONS IN DAY OLD TURKEYS (MELEAGRIDIS GALLOPAVO).

C H Bigland M L Benson

Can Vet J 9(6):138-141 REF

Jun 1968 41.8 R3224

Air sacs, Animal breeding, Infectious diseases, Livestock diseases, Mycoplasma meleagridis, Turkeys. French summary

18212-68

NEMATODIASIS IN LOUISIANA DAIRY CATTLE. IMPACT OF HOST NUTRITION UPON EXPERIMENTAL OSTERTAGIASIS IN THE BOVINE.

F R Bilkovich

Diss Abstr Sect B 28(8):3119B

Feb 1968 Z5055.U49D53

Animal nutrition, Cattle, Cooperia, Haemonchus, Livestock diseases, Nematodiasis, Ostertagia, Ostertagiasis, Trichostrongylus.

18213-68

ATYPICAL GLOBIDIOSIS IN A LAMB.

C E Binnering T C McGuire

Amer Vet Med Ass J 151(5):606-608 REF

01 Sep 1967 41.8 AM3

Autopsies, Globidiosis, Globidium gilruthi, Lambs.

Abstract: In a lamb with fibrinous enteritis and lymphadenitis that died suddenly, enteritis was caused by a protozoan, Globidium gilruthi, which had invaded the mesenteric lymph nodes.

18214-68

ECOLOGIC ASPECTS OF LISTERIOSIS.

D C Blendon F T Szatalowicz

Amer Vet Med Ass J 151(12):1761-1766 REF

15 Dec 1967 41.8 AM3

Diagnosis, Epizootic diseases, Listeria grayi, Listeria monocytogenes, Listeriosis.

Abstract

18215-68

PROPERTIES OF AUJESZKY'S DISEASE VIRUS STRAINS ISOLATED FROM SWINE PNEUMONIA CASES.

L Bodon J Meszaros G Papp-Vid J Romuany

Acta Vet (budapest) 18(1):107-109

1968 41.8 AC83

Animal diseases, Pneumonia, Pseudorabies, Research, Swine, Tissue culture, Vaccines.

18216-68

ECOLOGY OF CLOSTRIDIUM BOTULINUM TYPE E.

T L Bott

Diss Abstr Sect B 28(2):464B

Aug 1968 Z5055.U49D53

Clostridium botulinum, Ecology, Fish, Water.

18217-68

BLUETONGUE OF SHEEP AND CATTLE: PAST, PRESENT, AND FUTURE.

J G Bowne A J Luedke M M Jochim

Amer Vet Med Ass J 151(12):1801-1803 REF

15 Dec 1967 41.8 AM3

Bluetongue, Cattle, Culicoides, Epizootic diseases, Insect vectors, Sheep.

18218-68

FACTORS AFFECTING THE STORAGE, EXCRETION, AND PLACENTAL TRANSFER OF DIELDRIN IN DAIRY CATTLE.

D G Braund

Diss Abstr Sect B 29(2):423B-424B

Aug 1968 Z5055.U49D53

Animal physiology, Biochemistry, Dairy cattle, Dieldrin, Placenta, Storage.

18219-68

SOME PHYSIOLOGICAL RESPONSES OF RUMINANTS TO 2,2-DICHLOROVINYLDIMETHYL PHOSPHATE.

E J Bris

Diss Abstr Sect B 29(2):421B

Aug 1968 Z5055.U49D53

Animal physiology, Biochemistry, Dichlorvos, Dosage, Ruminants, Sheep.

18220-68

RELATIONSHIPS BETWEEN ZINC NUTRITION AND ALKALINE PHOSPHATASE ACTIVITY IN THE CHICK.

W M Britton

Diss Abstr Sect B 29(1):256B

Jul 1968 Z5055.U49D53

Alkaline phosphatase, Animal nutrition, Cadmium, Chicks, Deficiency diseases, Diet, Enzymes, Metabolism, Zinc.

18221-68

MYCETOMA IN A DOG.

R S Brodey H F Schryver M J Deubler W Kaplan L Asello

Amer Vet Med Ass J 151(4):442-451 REF

15 Aug 1967 41.8 AM3

Curvularia geniculata, Dogs, Mycetoma, Mycosis.

Abstract: Eumycotic (maduromycotic) mycetoma caused by Curvularia geniculata occurred in dog which had intermittent lameness and a progressively enlarging swelling in the right shoulder. Radiographically, there was considerable destruction of the scapula, along with deposition of new bone. Within the affected tissue, the organism appeared in the form of dark brown or black granules. At least 12 cases in lower animals have been reported. Those in man differ in geographic distribution, specific etiologic agent, and character of granules.

18222-68

ONE-YEAR IMMUNITY IN DOGS VACCINATED WITH HIGH EGG-PASSAGE RABIES VIRUS GROWN ON ESTABLISHED DOG KIDNEY CELL LINE.

A L Brown D L Merry W H Beckenhauer

Amer Vet Med Ass J 153(2):174-179 REF

15 Jul 1968 41.8 AM3

Dogs, Immunity, Rabies virus, Vaccines.

Abstract

18223-68

HEMOPHILIA-LIKE DISEASE OF SWINE: CYTOGENETIC STUDIES.

R C Brown K W Cole C N Cornell K M Brinkhouse

Amer J Vet Res 29(7):1491-1493 REF

Jul 1968 41.8 AM3A

Animal diseases, Animal genetics, Bone marrow, Cytology, Hemophilia, Leukocytes, Swine.

18224-68

AVIAN ADENO-LIKE VIRUSES: CHARACTERIZATION AND COMPARISON OF SEVEN ISOLATES.

C N Burke R E Luginbuhl L F Williams

Avian Dis 12(3):483-505 REF

Aug 1968 41.8 AV5

Animal diseases, Biology, Chicken embryo lethal orphan virus, Cytology, Enteric cytopathogenic porcine orphan virus, Hemagglutination, Serological tests, Virus diseases (animals).

18225-68

CORYNEBACTERIUM EQUI INFECTION IN TWO FOALS.

G E Burrows

Amer Vet Med Ass J 152(8):1119-1124 REF

15 Apr 1968 41.8 AM3

Abscesses, Arthritis, Corynebacterium equi, Culture media, Enteritis, Feeds, Foals, Livestock diseases, Pneumonia, Respiration.

18226-68

ACTIONS OF VITAMIN D3 AND SEX HORMONES ON CALCIUM METABOLISM OF BONE IN BIRDS, PARTICULARLY IN HENS.

S I Chang

Diss Abstr Sect B 29(2):667B-668B

Aug 1968 Z5055.U49D53

Animal physiology, Birds, Bones, Calcium, Chickens, Hormones, Metabolism, Sex, Vitamin d3.

18227-68

SOME NUTRITIONAL ASPECTS OF DIETARY MAGNESIUM IN RUMINANTS AND POULTRY.

C F Chicco

Diss Abstr Sect B 29(1):1B

Jul 1968 Z5055.U49D53

Animal nutrition, Diet, Feed, Magnesium, Measurement, Poultry, Research, Ruminants, Sheep.

18228-68

SOME CHARACTERISTICS OF THREE PORCINE ADENOVIRUSES.

M C Clarke H B A Sharpe J B Derbyshire

Arch Gesamte Virusforsch 21(1):91-97 REF

Jul 1967 448.3 AR23

Adenoviruses, Antibodies, Serodiagnosis, Serological tests, Swine, Taxonomy.

Abstract

18229-68

CLINICAL ASPECTS OF TOXIC INFECTIONS BY ANAEROBIC GERM SPORES IN RUMINANTS. (FR)

P H Cottreau

Soc Vet Prat France Bull Mens 52(4):205-224 REF

Apr 1968 41.9 SO12

Anaerobic bacteria, Animal diseases, Gastrointestinal system, Laboratories, Research, Ruminants, Spores.

18230-68

EFFECTS OF ATTENUATED HOG CHOLERA VIRUS IN PREGNANT SWINE AT VARIOUS STAGES OF GESTATION.

W O Cowart L G Morehouse

Amer Vet Med Ass J 151(12):1788-1794 REF

15 Dec 1967 41.8 AM3

Hog cholera virus, Pregnancy, Swine, Virus diseases (animals).

Abstract

18231-68

HOG CHOLERA: REPLICATION OF HOG CHOLERA VIRUS IN TISSUE CULTURE WITH CYTOPATHIC EFFECT.

J G Crawford T R Dayhuff M J Gallian

Amer J Vet Res (9):1733-1739 REF

Sep 1968 41.8 AM3A

Arginine, Buffer substances, Hog cholera virus, Research, Tissue culture.

18232-68

HOG CHOLERA: SAFETY AND PROTECTION STUDIES WITH PHOTODYNAMICALLY INACTIVATED HOG CHOLERA VIRUS.

J G Crawford T R Dayhuff E A White

Amer J Vet Res 29(9):1749-1759 REF

Sep 1968 41.8 AM3A

Antibodies, Hog cholera virus, Immunization, Injections, Light, Research, Virus diseases (animals).

18233-68

CHARACTERIZATION STUDIES ON FELINE PANLEUCOPENIA VIRUS. (WITH). II. PATHOGENESIS IN THE HOST.

D L Croghan

Diss Abstr Sect B 29(1):287B-288B

Jul 1968 Z5055.U49D53

Cats, Cells, Culture media, Feline infectious enteritis, Kidneys, Morphology, Mortality, Research, Temperature, Tissues, Virus diseases (animals).

18234-68

GROWTH AND DEVELOPMENT OF THE BOVINE AS RELATED TO CERTAIN ENDOCRINE FACTORS.

S E Curl M A Fennell D W Zinn R C Albin

J Anim Sci 27(4):1011-1014 REF

Jul 1968 49 J82

Animal anatomy, Animal diseases, Blood analysis, Calves, Correlation, Endocrine glands, Feedlots.

18235-68

ISOLATION AND CHARACTERIZATION OF THREE PLAQUE-TYPE CLONES OF THE HICKMAN STRAIN OF NEWCASTLE DISEASE VIRUS.

M D Daniel R P Hanson

Avian Dis 12(3):434-440

Aug 1968 41.8 AV5

Culture media, Erythrocytes, Newcastle disease virus, Population statistics, Research, Virus diseases (animals).

18236-68

ELECTRON MICROSCOPIC STUDIES ON THE DEVELOPMENT OF VESICULAR STOMATITIS VIRUS.

I S David-West N A Labzoffsky
Arch Gesamte Virusforsch 23(1-2):105-125 REF
Feb 1968 448 3 AR23

Electron microscopy, Morphology, Physiology, Rabies virus, Tissue culture, Vesicular stomatitis virus.

Abstract

18237-68

HISTOPATHOLOGIC CHANGES IN MALE SWINE WITH EXPERIMENTAL BRUCELLOSIS.

B L Deyoe
Amer J Vet Res 29(6):1215-1220 REF
Jun 1968 41.8 AM3A

Animal anatomy, Animal diseases, Animal histology, Brucella suis, Brucellosis, Granuloma, Lymph nodes, Swine.

18238-68

IMMUNOCHEMICAL AND BIOCHEMICAL INTERRELATIONSHIP OF STREPTOCOCCUS AGALACTIAE TO THE BOVINE.

K Dodd
Diss Abstr Sect B 29(2):697B
Aug 1968 Z5055.U49D53

Animal diseases, Biochemistry, Cattle, Chemistry, Immunity, Streptococcus agalactiae.

18239-68

ESTABLISHMENT OF THE PATHOLOGICAL RELATIONSHIP BETWEEN PLANT AND ANIMAL ISOLATES OF GEOTRICHUM CANDIDUM, IN EMBRYONATED CHICKEN EGGS.

Z M El-Tobshy
Diss Abstr Sect B 29(2):496B
Aug 1968 Z5055.U49D53

Chickens, Eggs, Embryology, Fungus diseases (animals), Fungus diseases (plants), Geotrichum candidum.

18240-68

BEHAVIOR OF EQUINE INFECTIOUS ANEMIA VIRUS IN CELL CULTURE AND DEVELOPMENT OF A DIAGNOSTIC TEST FOR THE DISEASE.

A El-Zein
Diss Abstr Sect B 29(2):697B-698B
Aug 1968 Z5055.U49D53

Culture media, Diagnosis, Equine infectious anemia, Horses, Research, Virus diseases (animals).

18241-68

A COLLECTIVE OUTBREAK OF TRANSMISSIBLE GASTROENTERITIS IN SWINE. III. ISOLATION OF A VIRUS WITH CYTOPATHOGENIC EFFECT AND ITS PROPERTIES. (JA)

M Eto K Uno M Mishima T Tunoda H Taneno S Watanabe T Ichihara
Jap Vet Med Ass J 21(2):73-76
1968 41.9 J275

Diagnosis, Gastroenteritis, Swine, Viruses. English abstract

Abstract

18242-68

EFFECTS OF SELENIUM AND VITAMIN E ON NUTRITIONAL MUSCULAR DYSTROPHY IN LAMBS.

R C Ewan C A Baumann A L Pope
J Anim Sci 27(3):751-756 REF
26 Jun 1968 49 J82

Animal diseases, Animal nutrition, Animal physiology, Biochemistry, Lambs, Muscular dystrophy, Selenium, Vitamin e.

18243-68

CHARACTERIZATION OF BOVINE VIRAL DIARRHEA VIRUSES BY THEIR INTERACTIONS WITH SUSCEPTIBLE HOST CELLS.

A L Fernclius

Diss Abstr Sect B 28(11):4674B

May 1968 Z5055.U49D53
Bovine virus diarrhoea virus, Cells, Cytology, Electron microscopy, Immunodiagnosis, Phenols, Rabbits, Ribonucleic acid, Virus diseases (animals).

18244-68

WATER, ELECTROLYTE, AND ACID-BASE ALTERATIONS IN EXPERIMENTAL CANINE LEPTOSPIROSIS.

D R Finco D G Low
Amer J Vet Res 29(9):1799-1807
Sep 1968 41.8 AM3A

Acids, Animal diseases, Blood serum, Calcium, Dogs, Electrolytes, Injections, Leptospira canicola, Thiocyanates, Water.

18245-68

NEWCASTLE DISEASE: A LEGAL INTERPRETATION.

J Francis
Vet Rec 83(8):205
24 Aug 1968 41.8 V641

Animal diseases, Antibodies, Laboratories, Newcastle disease virus, Research, Swine, Tissue culture.

18246-68

ARTIFICIALLY INDUCED IMMUNITY TO ENZOOTIC ABORTION IN EWES.

F W Frank L H Scrivner L Thomas D G Waldhalm W A Meinershagen
Amer J Vet Res 29(7):1441-1447 REF
Jul 1968 41.8 AM3A

Abortion, Animal diseases, Complement fixation, Immunization, Research, Sheep.

18247-68

A COMPARATIVE STUDY OF CELL WALL GLYCOPEPTIDE STRUCTURE OF SOME BOVINE VIBRIOS.

P H Fung
Diss Abstr Sect B 29(1):289B
Jul 1968 Z5055.U49D53

Assay, Cattle, Cell wall, Chromatography, Glycine, Glycopeptides, Ion exchange, Penicillin, Toxins, Vibrio bubulus, Vibrio fetus.

18248-68

A CASE OF PORCINE ENDOCARDITIS ASSOCIATED WITH STAPHYLOCOCCUS AUREUS.

H D Geissinger C E Andress
Can Vet J 8(10):236-238
Oct 1968 41.8 R3224

Endocarditis, Injections, Microscopy, Morphology, Research, Staphylococcus aureus, Swine.

18249-68

THE EXPERIMENTAL USE OF BULL SEMEN CONTAMINATED WITH PSEUDOMONAS AERUGINOSA ORGANISMS.

S M Getty D J Ellis
Amer Vet Med Ass J 151(12):1688-1691 REF
15 Dec 1967 41.8 AM3

Cattle, Fertility, Pseudomonas aeruginosa, Semen.

Abstract

18250-68

MYOGLOBIN IN CONTROL AND DYSTROPHIC CHICKENS.

D E Goldbloom
Diss Abstr Sect B 29(1):43B
Jul 1968 Z5055.U49D53

Amino acids, Animal diseases, Chickens, Chromatography, Electrophoresis, Extracts, Muscles, Muscular dystrophy, Myoglobin, Sedimentation.

18251-68

THE RESPONSE OF VARIOUS TISSUES IN NEONATE CALVES TO BOVINE PAPILLOMA VIRUS (BPV).

D E Gordon
Diss Abstr Sect B 29(1):5B
Jul 1968 Z5055.U49D53

Bovine papilloma virus, Cattle, Centrifugation, Electron microscopy, Homogenization, Papilloma, Research, Tissues, Virus diseases (animals).

18252-68

AN OUTBREAK OF RINGWORM AMONG CATTLE IN SHIMANE. (JA)

F Hara A Iwata K Iwasaki H Ueno
Jap Vet Med Ass J 21(2):69-72
1968 41.9 J275

Cattle, Epizootic diseases, Ringworm, Trycophyton. English abstract

Abstract

18253-68

SURVIVAL OF SALMONELLA, VIABLE BACTERIAL COUNT AND APPEARANCE OF CONTAMINATION-INDICATING ORGANISMS IN SALMONELLA-POSITIVE FEEDSTUFF. (JA)

H Hashimoto
Jap Vet Med Ass J 21(3):109-112, 118
1968 41.9 J275

Diagnosis, Feed, Fish meal, Food contamination, Salmonella. English summary

Abstract

18254-68

STRYCHNINE LEVELS IN TISSUES AND STOMACH CONTENTS OF POISONED DOGS: AN ELEVEN YEAR SURVEY.

R C Hatch H S Funnell
Can Vet J 9(7):161-164
Jul 1968 41.8 R3224

Dogs, Liver, Poisoning, Stomach, Strychnine, Surveys, Tissues. French summary

18255-68

CLOSTRIDIUM PERFRINGENS TYPE A INFECTION OF LIGATED INTESTINAL LOOPS IN LAMBS.

A H W Hauschild L Nild W J Dorward
Appl Microbiol 16(8):1235-1239 REF
Aug 1968 448.3 AP5

Animal diseases, Assay, Clostridium perfringens, Culture media, Enteritis, Injections, Intestines, Laboratory animals, Lambs, Research.

18256-68

LIPIDS OF VENEZUELAN EQUINE ENCEPHALOMYELITIS VIRUS AND THEIR RELATIONSHIP TO THE LIPIDS OF THE HOST.

F P Heydrick
Diss Abstr Sect A 29(1):289B
Jul 1968 Z5055.U49D5

Animal diseases, Chick embryos, Lipids, Phospholipids, Poultry, Venezuelan equine encephalomyelitis, Virus diseases (animals).

18257-68

AN ENZOOTIC OF PSEUDORABIES IN SWINE IN CALIFORNIA.

J A Howarth
Amer Vet Med Ass J 152(8):1114-1118 REF
15 Apr 1968 41.8 AM3

Blindness, Garbage (feed), Mortality, Nervous system diseases, Pseudorabies, Retina, Swine, Temperature, Virus diseases (animals).

18258-68

DEGRADATION OF CELLULAR RIBONUCLEIC ACID IN NEWCASTLE DISEASE VIRUS INFECTED CELLS.

W H Huo
Diss Abstr Sect B 29(1):289B-290B
Jul 1968 Z5055.U49D53

Cells, Chick embryos, Deoxyribonucleic acid, Metabolism, Newcastle disease, Nucleic acids, Radioactivity, Research, Ribonucleic acid, Virus diseases (animals).

18259-68

FIELD EXPERIMENT WITH THE ANTICOCIDIAL DIMETHYLIUM. (JA)

I Inoue
Jap Vet Med Ass J 21(1):27-32
1968 41.9 J275

Coccidiosis, Dimethylalum, Eimeria acervulina, Eimeria brunetti, Eimeria mitis, Therapeutics.

- 18260-68**
THE EXPERIMENTAL PRODUCTION OF A FORMALIN-KILLED JAPANESE ENCEPHALITIS VIRUS VACCINE FROM PORCINE KIDNEY CELL CULTURES.
Y K Inoue Y Nishibe
Arch Gesamte Virusforsch 21(2):192-199 REF
Sep 1967 448.3 AR23
Japanese b encephalitis virus, Productivity, Tissue culture, Vaccines.
Abstract
- 18261-68**
A FERN POISONING-LIKE DISEASE OBSERVED IN AN IMPROVED PASTURE. (JA)
F Ito
Jap Vet Med Ass J 20(9):389-394
1967 41.9 J275
Livestock, Pasture management, Poisonous plants, Peridophyta.
- 18262-68**
OXALATE METABOLISM IN SHEEP II. EFFECT OF LOW LEVEL HALOGETON GLOMERATUS INTAKE ON ELECTROLYTE METABOLISM.
L F James J C Street J E Butcher J L Shupe
J Anim Sci 27(3):724-729 REF
May 1968 49 J82
Animal physiology, Electrolytes, Halogeton glomeratus, Metabolism, Oxalates, Sheep.
- 18263-68**
DUCK PLAGUE.
J Jansen
Amer Vet Med Ass J 152(7):1009-1016 REF
01 Apr 1968 41.8 AM3
Biological transport, Cloaca, Ducks, Esophagus, Immunity, Mortality, Mucosal disease, Plague, Purpura hemorrhagica, Virus diseases (animals).
- 18264-68**
MYCOPLASMAS: THEIR ROLE IN BOVINE DISEASE.
D E Jasper
Amer Vet Med Ass J 151(12):1650-1655 REF
15 Dec 1967 41.8 AM3
Arthritis, Cattle, Mastitis, Mycoplasma, Pleuropneumonia, Reproductive organs.
Abstract
- 18265-68**
CALIFORNIA-ENCEPHALITIS-GROUP VIRUSES IN FLORIDA RABBITS: REPORT OF EXPERIMENTAL AND SENTINEL STUDIES.
W L Jennings A L Lewis G E Sather W M Hammon J O Bond
Amer J Trop Med Hyg 17(5):781-787 REF
Sep 1968 448.8 AM326
Antibodies, Antigens, California encephalitis virus, Hemagglutination-inhibition test, Injections, Laboratory animals, Measurement, Rabbits, Research, Serological tests, Virus diseases (animals).
- 18266-68**
SEROLOGICAL TESTS FOR THE DETECTION OF ANTIBODIES TO MYCOPLASMA GALLISEPTICUM IN CHICKENS AND TURKEYS.
F T W Jordan P Kulasegaram
J Hyg 66(2):249-267 REF
Jun 1968 449.8 J82
Antibodies, Mycoplasma gallisepticum, Poultry, Serological tests.
Abstract
- 18267-68**
PATHOLOGY A-D IMMUNOFLOUORESCENCE STUDIES OF BOVINE MYCOPLASMA MASTITIS.
E Karbe
Diss Abstr Sect B 28(8):3120B
Feb 1968 Z5055.U49D53
Animal diseases, Antibodies, Cattle, Immunofluorescence, Mastitis, Milk, Mycoplasma agalactiae, Rabbits.
- 18268-68**
PATHOLOGICAL CHANGES OF ACUTE NEWCASTLE DISEASE IN AN OUTBREAK IN MIYAZAKI PREFECTURE WITH SPECIAL REFERENCE TO THOSE OF THE CLOACA. (JA)
M Kawasaki
Jap Vet Med Ass J 21(3):113-118
1968 41.9 J275
Chickens, Cloaca, Epizootic diseases, Histology, Newcastle disease.
- 18269-68**
ANTIBODY RESPONSE TO IMMUNIZATION IN EXPERIMENTAL SALMONELLOSIS.
K V Kenny
Diss Abstr Sect B 29(1):290B
Jul 1968 Z5055.U49D53
Agglutination, Animal diseases, Antibodies, Assay, Bacteria, Enterobacteriaceae, Escherichia coli, Immunology, Mice, Salmonella typhimurium, Salmonellosis, Serological tests.
- 18270-68**
MEDICATED FEEDS; APPROVAL OF NEW DRUG APPLICATIONS.
J K Kirk
Fed Regist 33(128):9609
02 Jul 1968 L1.451
Drug therapy, Drugs, Feed, Feed additives, Therapeutics.
- 18271-68**
FOOD INTAKE AND GROWTH OF BURRO FOALS AFTER 250 ROENTGENS OF COBALT-60 WHOLE-BODY GAMMA IRRADIATION.
J J Knapka D G Brown K M Barth
Radiat Res 36(1):158-165 REF
Oct 1968 334.8 R11
Animal physiology, Asses, Cobalt, Food, Gamma rays, Irradiation, Isotopes, Metabolism, X-rays.
- 18272-68**
THE EQUINE RESPIRATORY DISEASE SYNDROME IN THE PACIFIC NORTHWEST.
L M Koger
Amer Vet Med Ass J 151(12):1611-1614
15 Dec 1967 41.8 AM3
Horses, Pacific Northwest, Respiratory diseases.
- 18273-68**
SEROLOGIC RESPONSE OF SWINE TO ESCHERICHIA COLI ANTIGENS.
E M Kohler R B Moore S Smith
Amer J Vet Res 29(7):1419-1428 REF
Jul 1968 41.8 AM3A
Antigens, Blood serum, Colibacillosis, Escherichia coli, Immunization, Swine.
- 18274-68**
EFFECTS OF A LOW MANGANESE DIET ON CERTAIN OVINE CHARACTERISTICS.
J W Lassiter J D Morton
J Anim Sci 27(3):776-779
May 1968 49 J82
Anatomy, Animal nutrition, Animal physiology, Diet, Lambs, Manganese.
- 18275-68**
TREATMENT OF STRONGYLOIDES RANSOMI INFECTION OF PIGS WITH THIABENDAZOLE AND DICHLORVOS.
S E Leland F C Neal C B Plummer
Amer J Vet Res 29(6):1235-1240
Jun 1968 41.8 AM3A
Dichlorvos, Eggs, Epizootic diseases, Feeding, Strongyloides ransomi, Swine, Thiazolylbenzimidazole, 2-(4-).
- 18276-68**
CONTAGIOUS BOVINE PLEUROPNEUMONIA AND THE PROBLEMS ASSOCIATED WITH ITS CONTROL.
E P Lindley
Amer Vet Med Ass J 151(12):1810-1815 REF
15 Dec 1967 41.8 AM3
Cattle, Epizootic diseases, Goats, Mycoplasma mycoides, Therapeutics.
- 18277-68**
BASIC BIOLOGICAL CHARACTERISTICS OF MYCOPLASMA.
D L Madden N B McCullough
Amer Vet Med Ass J 151(12):1638-1649 REF
15 Dec 1967 41.8 AM3
Biochemistry, Biology, Classification, Morphology, Mycoplasma, Physiology.
Abstract
- 18278-68**
THE USE OF POLYVALENT INACTIVATED VACCINE THERAPEUTICALLY AGAINST EQUINE INFLUENZA.
C I Manners
Amer Vet Med Ass J 151(12):1609-1610.
15 Dec 1967 41.8 AM3
Equine influenza, Horses, Therapeutics, Vaccines.
- 18279-68**
GASTROINTESTINAL PARASITISM IN FEEDER CALVES OF SOUTHERN ILLINOIS.
M E Mansfield J R Pickard G W Meycrholz H N Becker
Amer J Vet Res 29(7):1479-1487
Jul 1968 41.8 AM3A
Calves, Gastrointestinal system, Nematodes, Parasitism, Strongyloides.
- 18280-68**
INCREASED INCIDENCE OF AVIAN LEUKOSIS IN RESPONSE TO EXCESS VITAMIN A.
B E March J Bicy
Nature 214(5085):287-288 REF
15 Apr 1967 472 N21
Animal nutrition, Avian leukosis complex, Birds, Diagnosis, Mortality, Research, Virus diseases (animals), Vitamin a.
- 18281-68**
THE UTILIZATION OF VITAMIN A AND CAROTENE BY RUMINANTS. I. VITAMIN A POTENCY OF CAROTENES IN CORN SILAGE FED TO LAMBS. 2. THE EFFECT OF TIME AND ROUTE OF ADMINISTRATION OF VITAMIN A ON LIVER VITAMIN A STORAGE BY STEERS. 3. THE EFFECT OF ROUTE OF ADMINISTRATION OF VITAMIN A ON BLOOD SERUM AND LIVER VITAMIN A CONCENTRATIONS IN STEERS AT SUBSEQUENT TIME INTERVALS.
F H Martin
Diss Abstr Sect B 29(1):256B
Jul 1968 Z5055.U49D53
Animal nutrition, Blood serum, Carotenes, Cattle, Corn, Diet, Feed, Lambs, Liver, Research, Ruminants, Vitamin a.
- 18282-68**
PREVALENCE OF TRICHINELLA SPIRALIS IN WILD ANIMALS ON TWO ILLINOIS SWINE FARMS.
R J Martin P R Schnurrenberger F L Andersen C K Hsu
J Parasitol 54(1):108-111
Feb 1968 448.8 J824
Mice, Rats, Swine, Trichinella spiralis, Wildlife diseases.
Abstract: On one farm only grain and commercial supplements were utilized as swine feed. Of 239 wild animals only one r. norvegicus and one P. leucopus were found infected with T. spiralis. This is the 1st. report of natural T. spiralis in P. leucopus. Cooked garbage was fed to swine on the 2nd farm. Of 250 animals only two R. norvegicus were found infected with T. spiralis.
- 18283-68**
THE SIGNIFICANCE OF THE STAY OF NECA-TOR AMERICANUS LARVAE IN THE PUPPY LUNG ON THEIR FURTHER DEVELOPMENT. (JAP)
K Matsuno I Nose M Ishikawa S Okada Y Takahashi
Jap J Parasitol 16(5):313-318 REF
Oct 1967 436.8 J27

18284-68

Dogs, Lungs, *Necator americanus*, Necatoriasis, Respiratory system. English abstract

Abstract

18284-68

HISTOPATHOLOGICAL AIDS TO THE DIAGNOSIS OF CERTAIN POULTRY DISEASES.

O Y Mayor

Vet Bull 38(5):273-285 REF

May 1968 41.8 T752

Deficiency diseases, Diagnosis, Histology, Livestock diseases, Lymphomatosis, Neoplasms, Nervous system, Poultry, Respiration.

18285-68

ELECTRON OPTICAL AND BUOYANT DENSITY STUDIES OF HOG CHOLERA VIRUS.

A Mayr P A Bachmann B E Sheffy G Siegl

Arch Gesamte Virusforsch 21(1):113-119 REF

Jul 1967 448.3 AR23

Biophysics, Density, Electron microscopy, Hog cholera virus, Swine.

Abstract

18286-68

PSITTACOSIS-LYMPHOGRANULOMA VENEREUM AGENT ISOLATED DURING AN ABORTION EPIZOOTIC IN GOATS.

E H McCauley E L Ticken

Amer Vet Med Ass J 152(12):1758-1765 REF

15 Jun 1968 41.8 AM3

Abortion, Antibiotics, Cattle, Epizootic diseases, Goats, Miyagawanella group viruses, Penicillin, Sheep.

Abstract: The agent was isolated from tissue of an aborted goat fetus during an abortion epizootic in a herd of 216 milk goats. The herd had a 12 per cent abortion rate during the 1967 parturition season and a 38 per cent rate during one month. A marked decrease in incidence was observed after penicillin therapy was given to pregnant goats. The isolate caused abortion in 2 susceptible cows and 1 ewe. Evidence indicates the probable introduction of the agent into this herd by male and female goats from another source which had a history of high abortion rates in primiparous goats. Females bred to males from this source had a higher incidence of abortion than those bred to other males.

18287-68

SALMONELLA DUBLIN MENINGITIS IN PIGLETS.

B A McErlean

Vet Rec 82(9):257-258

02 Mar 1968 41.8 V641

Baby pigs, Brain, Livestock diseases, Meningitis, Salmonella dublin.

18288-68

FOOT-AND-MOUTH DISEASE IN SWINE. I. THE IMMUNE RESPONSE OF SWINE TO CHEMICALLY-TREATED AND NON-TREATED FOOT-AND-MOUTH DISEASE VIRUS.

P D McKercher A R Giordano

Arch Gesamte Virusforsch 20(1):39-53 REF

Feb 1967 448.3 AR23

Antibodies, Foot-and-mouth disease virus, Immunization, Serological tests, Swine.

Abstract

18289-68

FOOT-AND-MOUTH DISEASE IN SWINE. II. SOME PHYSICAL-CHEMICAL CHARACTERISTICS OF ANTIBODIES PRODUCED BY CHEMICALLY-TREATED AND NON-TREATED FOOT-AND-MOUTH DISEASE VIRUS.

P D McKercher A R Giordano

Arch Gesamte Virusforsch 20(1):54-70 REF

Feb 1967 448.3 AR23

Antibodies, Biochemistry, Biophysics, Foot-and-mouth disease virus, Swine.

Abstract

18290-68

COPPER AND ASCORBIC ACID IN GUINEA PIG TISSUES AS EFFECTED BY DIETARY INTAKE.

V R McMasters

Diss Abstr Sect B 29(1):257B

Jul 1968 Z5055.U49D53

Animal histology, Animal nutrition, Animal physiology, Ascorbic acid, Copper, Cytoplasm, Deficiency diseases, Diet, Guinea pigs, Metabolism, Tissues, Toxicology.

18291-68

A FLUORESCENT MICRO-PLAQUE ASSAY FOR HOG CHOLERA VIRUS. LOCALIZATION OF INFECTION WITH HOMOLOGOUS ANTISERUM.

W L Mengeling

Arch Gesamte Virusforsch 23(1-2):27-39 REF

Feb 1968 448.3 AR23

Diagnosis, Fluorescent antibody technic, Hog cholera virus, Physiology.

Abstract

18292-68

MINERAL AND ENDOCRINE INTERRELATIONSHIPS IN RENAL CALCIFICATION.

D L Meyer

Diss Abstr Sect B 28(8):3120B-3121B

Feb 1968 Z5055.U49D53

Biological assay, Blood serum, Calcification (physiological), Kidneys, Magnesium, Parathyroid glands, Phosphorus, Rats, Thyroxine.

18293-68

RESPONSE OF LYMPHOCYTE-DEPLETED CALVES TO FLUID TETANUS TOXOID.

H W Moon R D Stoner D D Joel A D Chanana E P Cronkite

Amer J Vet Res 29(6):1211-1214

Jun 1968 41.8 AM3A

Antibodies, Blood, Calves, Irradiation, Lymph, Tetanus toxoid.

18294-68

LIVER GRANULOMAS OF TURKEYS CAUSTIC AGENTS AND MECHANISM OF INFECTION.

W E C Moore W B Gross

Avian Dis 12(3):417-422

Aug 1968 41.8 AV5

Animal diseases, Bacteria, Culture media, Germ-free life, Granuloma, Liver, Morphology, Streptococcus fecalis, Turkeys.

18295-68

EFFECTS OF GENETIC CELLULAR RESISTANCE ON CELL TRANSFORMATION AND VIRUS REPLICATION IN CHICKEN HEMATOPOIETIC CELL CULTURES INFECTED WITH AVIAN MYELOBLASTOSIS VIRUS (BAI-0A).

C Moscovici P K Vogt

Virology 35(4):487-497 REF

Aug 1968 448.8 V81

Avian myeloblastosis virus, Cells, Chickens, Culture media, Genetics, Hematopoietic system, Neoplastic diseases, Virus diseases (animals).

18296-68

THE ROLE OF THE EPIDEMIOLOGIST IN THE CONTROL AND ERADICATION PROGRAMS OF POULTRY DISEASES.

J I Moulthrop E E Grass B S Pomeroy

Amer Vet Med Ass J 151(12):1853-1856

15 Dec 1967 41.8 AM3

Epidemiology, Epizootic diseases, Poultry.

18297-68

LONGEVITY OF AN EXPERIMENTAL INFECTION WITH DIROFILARIA IMMITIS IN A DOG.

W L Newton

J Parasitol 54(1):187-188

Feb 1968 448.8 J824

Animal diseases, Anopheles quadrimaculatus, *Dirofilaria immitis*, Dogs, Longevity.

18298-68

ANIMAL SENTINELS IN A STATEWIDE ARTHROPOD-BORNE ENCEPHALITIS SURVEILLANCE PROGRAM.

J B Nichols W J Bigler

Amer Vet Med Ass J 151(12):1767-1771 REF

15 Dec 1967 41.8 AM3

Epidemiology, Equine encephalomyelitis, Horses, Insect vectors, Surveys.

Abstract

18299-68

UTILIZATION OF THE CARD TEST IN BRUCELLOSIS ERADICATION.

P Nicoletti

Amer Vet Med Ass J 151(12):1778-1783 REF

15 Dec 1967 41.8 AM3

Agglutination test, Brucellosis, Cattle, Serodiagnosis.

Abstract

18300-68

PLACENTAL PATHOLOGY OF EXPERIMENTALLY-INDUCED ENZOOTIC ABORTION IN EWES.

M N Novilla

Diss Abstr Sect B 28(8):3121B

Feb 1968 Z5055.U49D53

Agricultural research, Enzoootic abortion, Fetal membranes, Livestock diseases, Microorganisms, Placenta, Sheep.

18301-68

TRANSMISSION OF SALMON POISONING DISEASE TO DOGS BY NANOPHYETUS SALMINCOLA EGGS.

P A Nyberg

Diss Abstr Sect B 28(11):4805B

May 1968 Z5055.U49D53

Animal diseases, Dogs, Inclusion bodies, Injections, Nanophyetus salmincola, Neorickettsia helminthoeca, Trematoda.

18302-68

A COMPARISON OF METHODS OF MEASURING THE PERSISTENCE OF NEUTRALIZING AND HAEMAGGLUTININ-INHIBITING ANTIBODIES TO LOUPING ILL VIRUS IN EXPERIMENTALLY INFECTED SHEEP.

K J O'Reilly C E G Smith D A McMahon E T W Bowen G White

J Hyg 66(2):217-227 REF

Jun 1968 449.8 J82

Antibodies, Livestock diseases, Louping ill virus, Serological tests, Serum neutralization test, Sheep.

Abstract

18303-68

RABIES CONTROL IN PUBLIC HEALTH ADMINISTRATION. (JA)

H Otani

Jap Vet Med Ass J 20(9):382-385

1967 41.9 J275

Animal diseases, Epidemiology, Public health administration, Rabies.

18304-68

STUDIES ON THE REPLICATION OF AFRICAN HORSE-SICKNESS VIRUS IN TWO DIFFERENT CELL LINE CULTURES.

Y Ozawa

Arch Gesamte Virusforsch 21(2):155-169 REF

Sep 1967 448.3 AR23

Acridine orange, African horse sickness virus, Nucleic acids, Physiology, Tissue culture.

Abstract

18305-68

MITOCHONDRIAL INVOLVEMENT IN THE HOST-PARASITE RELATIONSHIP.

S G Pal

Arkiv Zool 20(1):79-83

1967 410.9 SV22

Cytology, Electron microscopy, Mice, Mitochondria, Toxoplasma gondii, Toxoplasmosis.

Abstract

- 18306-68**
BIOCHEMICAL AND BIOPHYSICAL PROPERTIES OF CANINE DISTEMPER VIRUS.
L A Phillips
Diss Abstr Sect B 28(11):4679B
May 1968 Z5055.U49D53
Biochemistry, Canine distemper virus, Density, Physiology, Ribonucleic acid, Taxonomy, Virus diseases (animals).
- 18307-68**
HISTIDINE DECARBOXYLASE IN STRAINS OF ESCHERICHIA COLI ISOLATED FROM NORMAL SWINE AND SWINE WITH EDEMA DISEASE AND ENTERIC DISORDERS.
J A Pickrell H E Rhoades J Gossling
Amer J Vet Res 29(7):1397-1399
Jul 1968 41.8 AM3A
Animal abnormalities, Clostridium, Edema, Enteritis, Escherichia coli, Histamine, Histidine decarboxylase, Pseudomonas fluorescens, Research, Swine.
- 18308-68**
CHANGES IN PROTEIN AND NUCLEIC ACID METABOLISM IN BABY HAMSTER KIDNEY CELLS INFECTED WITH FOOT-AND-MOUTH DISEASE VIRUS.
J Polatnick G F V Woude R B Arlinghaus
Arch Gesamte Virusforsch 23(3):218-226 REF
Mar 1968 448.3 AR23
Deoxyribonucleic acid, Foot-and-mouth disease virus, Hamsters, Kidneys, Metabolism, Physiology, Ribonucleic acid, Tissue culture.
Abstract
- 18309-68**
IONIZING IRRADIATION OF FOOT-AND-MOUTH DISEASE VIRUS AND ITS RIBONUCLEIC ACID.
J Polatnick H L Bachrach
Arch Gesamte Virusforsch 23(1-2):96-104 REF
Feb 1968 448.3 AR23
Biochemistry, Foot-and-mouth disease virus, Ionizing radiation, Ribonucleic acid, Tissue culture.
Abstract
- 18310-68**
EXPERIMENTAL TRANSMISSION OF TWO CANINE NEOPLASMS: LYMPHOSARCOMA AND MAST CELL LEUKEMIA.
J E Post
Diss Abstr Sect B 29(1):259B-260B
Jul 1968 Z5055.U49D53
Animal diseases, Cells, Dogs, Electron microscopy, Immunology, Leukemia, Lymphosarcoma, Neoplasms, Research, Transplanting.
- 18311-68**
EFFECT OF BURSECTOMY ON THE ROUS VIRUS TUMOUR INDUCTION IN CHICKENS.
R Radzichovskaja
Nature 213(5082):1259-1260 REF
25 Mar 1967 472 N21
Animal diseases, Antibodies, Bursectomy, Chickens, Research, Rous sarcoma, Rous sarcoma virus.
- 18312-68**
AGE SUSCEPTIBILITY AND EXCRETION OF SALMONELLA TYPHIMURIUM IN CALVES.
R A Robinson K I Loken
J Hyg 66(2):207-216 REF
Jun 1968 449.8 J82
Calves, Diagnosis, Livestock diseases, Salmonella typhimurium, Salmonellosis.
Abstract
- 18313-68**
SUCCESSFUL TREATMENT OF COCCIDIOSIS IN LAMBS.
D B Ross
Vet Rec 83(8):189-190
24 Aug 1968 41.8 V641
Amprolium, Coccidiosis, Eimeria, Ethopabate, Lambs, Research.
- 18314-68**
ALTERATIONS IN THE RESPONSE AND FUNCTIONS OF THE CHICKEN PANCREAS INDUCED BY FEEDING UNHEATED AND AUTOCULATED SOYBEAN MEAL.
A J Salmon
Diss Abstr Sect B 29(2):669B
Aug 1968 Z5055.U49D53
Animal physiology, Chickens, Feeding, Pancreas, Soybean meal.
- 18315-68**
IMMUNIZATION OF FOXES WITH INACTIVATED VIRUS RABIES VACCINE.
R C Schmidt R K Sikes
Amer Vet Med Ass J 29(9):1843-1847
Sep 1968 41.8 AM3
Animal diseases, Antibodies, Foxes, Immunization, Injections, Rabies virus, Research, Serum neutralization test, Vaccines.
- 18316-68**
SOME FACTORS AFFECTING INTERFERON PRODUCTION BY FOOT-AND-MOUTH DISEASE VIRUS IN BOVINE TISSUE CULTURES.
R F Sellers J H Bennett G N Mowat W A Snowden
Arch Gesamte Virusforsch 23(1-2):1-11 REF
Feb 1968 448.3 AR23
Cattle, Cytopathology, Foot-and-mouth disease virus, Interferon, Physiology, Tissue culture.
Abstract
- 18317-68**
INTERFERENCE BETWEEN MODIFIED AND VIRULENT STRAINS OF FOOT-AND-MOUTH DISEASE VIRUS.
R F Sellers G N Mowat
Arch Gesamte Virusforsch 23(1-2):20-26 REF
1968 448.3 AR23
Cattle, Cytopathology, Foot-and-mouth disease virus, Interferon, Physiology, Tissue culture.
Abstract
- 18318-68**
AN OUTBREAK OF ORNITHOSIS IN FOWLS.
S A Sheikh M A Mahmood N A Khan
Pakistan J Sci 19(1-2):64-66
Jan 1967 475 P172
Autopsies, Ornithosis, Poultry, Therapeutics.
Abstract
- 18319-68**
EXPERIMENTAL PRODUCTION OF RHEUMATOID ARTHRITIS OF SWINE: PHYSIOPATHOLOGIC CHANGES OF TISSUES.
D Sikes
Amer J Vet Res 29(9):1719-1731 REF
Sep 1968 41.8 AM3A
Animal diseases, Arthritis, Blood serum, Erysipelothrix insidiosa, Histology, Hypergammaglobulinemia, Serological tests, Swine, Tissues.
- 18320-68**
ENZOOTIC RABIES IN RODENTS IN THAILAND.
P C Smith K Lawhaswasdi W E Vick J S Stanton
Nature 217(5132):954-955
09 Mar 1968 472 N21
Animal vectors, Diagnosis, Fluorescent antibody technic, Rabies, Rabies virus, Rodents, Virus diseases (animals).
- 18321-68**
WHAT VETERINARIANS CAN DO ABOUT THE SALMONELLA PROBLEM.
G H Snoeyenbos
Amer Vet Med Ass J 151(12):1795-1800 REF
15 Dec 1967 41.8 AM3
Diagnosis, Epidemiology, Epizootic diseases, Food sanitation, Salmonellosis.
- 18322-68**
INFLUENCE OF STATOLON-INDUCED INTERFERON ON RABIES VIRUS INFECTION IN MICE.
O A Soave
Amer J Vet Res 29(7):1507-1508
Jul 1968 41.8 AM3A
Interferon, Mice, Rabies virus, Statolon, Veterinary medicine.
- 18323-68**
SEROLOGIC SURVEY FOR TOXOPLASMA ANTIBODIES IN A COLONY OF RESEARCH DOGS AND CATS IN CALIFORNIA.
O A Soave
Amer J Vet Res 29(7):1505-1506
Jul 1968 41.8 AM3A
Antibodies, Cats, Dogs, Research, Serological tests, Toxoplasma gondii.
- 18324-68**
EIGHT FELINE VIRUSES: AN ELECTRON MICROSCOPIC STUDY.
J D Strandberg
Diss Abstr Sect B 29(1):292B
Jul 1968 Z5055.U49D53
Cats, Cells, Electron microscopy, Kidneys, Morphology, Research, Virus diseases (animals).
- 18325-68**
IMPROVED TECHNIQUES FOR THE DETECTION OF FOOT-AND-MOUTH DISEASE VIRUS IN CARRIER CATTLE.
P Suttmoller G E Cottral
Arch Gesamte Virusforsch 21(2):170-177 REF
Sep 1967 448.3 AR23
Biological assay, Cattle, Diagnosis, Foot-and-mouth disease virus.
Abstract
- 18326-68**
THE EPIZOOTIOLOGICAL IMPORTANCE OF FOOT-AND-MOUTH DISEASE CARRIERS. I. EXPERIMENTALLY PRODUCED FOOT-AND-MOUTH DISEASE CARRIERS IN SUSCEPTIBLE AND IMMUNE CATTLE.
P Suttmoller J W McVicar G E Cottral
Arch Gesamte Virusforsch 23(3):227-235 REF
Mar 1968 448.3 AR23
Animal vectors, Cattle, Epidemiology, Epizootic diseases, Foot-and-mouth disease, Immunity.
Abstract
- 18327-68**
THE CONNECTION BETWEEN SUNSPOT CYCLES AND MASS MORTALITY AMONG VERTEBRATES AND NON-VERTEBRATES DUE TO PARASITIC ACTIVITY. (GE)
L Szidat
Z Parasitenk 30(1):1-17 REF
1968 442.8 Z33F
Animal ecology, Epidemiology, Parasitism, Solar disturbances, Trematoda, Weather. English and german abstract
Abstract
- 18328-68**
ELECTRON MICROSCOPY OF BOVINE PAPILLOMA AND DEER FIBROMA VIRUSES.
M Tajima D E Gordon C Olson
Amer J Vet Res 29(6):1185-1194 REF
Jun 1968 41.8 AM3A
Bovine papilloma virus, Cattle, Cells, Deer, Electron microscopy, Fibroma, Tissues, Virus diseases (animals).
- 18329-68**
RELATIONSHIP BETWEEN INFECTING DOSE, MUSCLE PARASITISM AND ANTIBODY RESPONSE IN EXPERIMENTAL TRICHINOSIS IN RABBITS.
C E Tanner
J Parasitol 54(1):98-107 REF
Feb 1968 448.8 J824
Antibodies, Dosage, Larvae, Parasitism, Rabbits, Trichinella spiralis, Trichinosis.
Abstract: The number of parasites obtained in the muscle and the serum antibody titer of the experimental animals were determined. It was found that the degree of muscle parasitism was independent of

the size of the infecting dose with one exception, all doses produced same level of parasitism.

18330-68
EPIZOOTIOLOGIC OBSERVATIONS OF CANINE FILARIASIS IN GEORGIA.
J P Thrasher J R Clanton
Amer Vet Med Ass J 152(10):1517-1520 REF
15 May 1968 41.8 AM3

Animal diseases, Animal ecology, Dipetalonema reconditum, Dirofilaria immitis, Dogs, Filariasis, Insect vectors, Nematodes, Siphonaptera.

18331-68
THE EFFECT OF TRAUMA ON PRODUCTION OF HERPES INTERFERON IN GUINEA PIGS.
T Tokumaru
Arch Gesamte Virusforsch 21(1):61-70 REF
Jul 1967 448.3 AR23

Animal physiology, Guinea pigs, Herpes simplex, Injuries, Interferon.

Abstract

18332-68
COMMON DISEASE PROBLEMS IN LABORATORY ANIMALS.
B F Trum J K Routledge
Amer Vet Med Ass J 151(12):1886-1896 REF
15 Dec 1967 41.8 AM3

Epizootic diseases, Laboratory animals, Therapeutics.

18333-68
ADMINISTRATION OF GLYCURONIC ACID AND ITS EXCRETION IN DAIRY COWS. (JA)
J Ushijima R Yuasa
Jap Vet Med Ass J 21(2):79-81 REF
1968 41.9 J275

Cattle, Glycuronic acids, Metabolism, Urine. English abstract

Abstract

18334-68
THE EFFECT OF DIET ON THE UTILIZATION OF STABLE AND RADIOACTIVE COPPER IN RUMINANTS.
P A Van Wallegghem
Diss Abstr Sect B 29(2):425B-426B
Aug 1968 Z5055.U49D53

Animal physiology, Biochemistry, Copper, Diet, Metabolism, Radioactivity, Ruminants.

18335-68
THE OCCURRENCE OF BACTERIA IN CHRONIC PURULENT EYE DISCHARGE.
M A J Verner J W Gunnink
J Small Anim Pract 9(1):33-36 REF
Jan 1968 41.8 J8292

Bacteria, Cats, Conjunctivitis, Dogs, Eyes. English, French and German abstract

Abstract

18336-68
EXPERIMENTAL BLUETONGUE DISEASE IN WHITE-TAILED DEER.
R A Vosding O O Trainer B C Easterday
Can J Comp Med Vet Sci 32(1):382-387 REF
Jan 1968 41.8 C162

Animal physiology, Antibodies, Bluetongue virus, Deer, Immunity, Sheep, Virus diseases (animals).

Abstract: Clinical signs and lesions of BTV in deer were described. The incubation period, signs and lesions of Bt and epizootic hemorrhagic disease of deer appear to be similar. Neutralizing antibodies were detected in all of the convalescent sera.

18337-68
BIOCHEMICAL AND SEROLOGIC CHARACTERISTICS OF VIBRIO ISOLANTS FROM CATTLE.

A T Walsh F H White
Amer J Vet Res 29(7):1376-1383
Jul 1968 41.8 AM3A

Antigens, Biochemistry, Cattle, Flagella, Serological tests, Vibrio buhulus, Vibrio fetus.

18338-68
PNEUMONIA OF SHEEP IN KENYA. II. PATHIOLOGY OF CHRONIC PROGRESSIVE PNEUMONIA.

J G Wandera
Bull Epizoot Dis Afr 15(4):393-407 REF
Dec 1967 41.8 B872

Jaagzichte, Livestock diseases, Pneumonia, Sheep.

18339-68
BIOPHYSICAL STUDIES OF TESCHEN DISEASE VIRUS (TALFAN STRAIN).
R E Warrington

Arch Gesamte Virusforsch 21(1):78-90 REF
Jul 1967 448.3 AR23

Biophysics, Electron microscopy, Properties, Teschen disease virus.

Abstract

18340-68
SOME STUDIES ON THE PATHOGENESIS AND EPIZOOTIOLOGY OF EPIZOOTIC HEMORRHAGIC DISEASE OF DEER.

A R Wilhelm
Diss Abstr Sect B 28(11):4681B
May 1968 Z5055.U49D53

Antibodies, Antigens, Deer, Epizootic diseases, Hematology, Research, Serological tests, Serum, Virus diseases (animals).

18341-68
THE PENETRATION PATTERNS OF SALMONELLA TYPHIMURIUM THROUGH THE OUTER STRUCTURES OF CHICKEN EGGS.

J E Williams L H Dillard G O Hall
Avian Dis 12(3):445-466 REF
Aug 1968 41.8 AV5

Animal diseases, Chickens, Cuticle, Eggs, Salmonella typhimurium, Temperature.

18342-68
SOURCES OF SALMONELLAS IN MARKET SWINE.

L P Williams K W Newell
J Hyg 66(2):281-293 REFS
Jun 1968 449.8 J82

Environment, Salmonella, Swine.

Abstract

18343-68
STAINED MONOLAYER TEST: A COLOR TEST IN DISPOSABLE PLASTIC TRAYS FOR TITRATING TRANSMISSIBLE GASTROENTERITIS VIRUS AND NEUTRALIZING ANTIBODIES.

K H Witte B C Easterday
Amer J Vet Res 29(7):1409-1417
Jul 1968 41.8 AM3A

Antibodies, Equipment, Gastroenteritis, Immunity, Infectious diseases, Swine, Viruses, Volumetric analysis.

18344-68
ACUTE INFECTIOUS BOVINE RHINOTRACHEITIS AND SALMONELLOSIS IN A DAIRY HERD.

G T Woods L E Hanson G A Swenson H E Rhoades
Amer Vet Med Ass J 152(10):1530-1535 REF
15 May 1968 41.8 AM3

Abortion, Animal diseases, Dairy cattle, Infectious bovine rhinotracheitis virus, Milk, Mortality, Salmonella typhimurium.

Abstract: Necropsy findings in a cow consisted primarily of ulcerations of the omasum and abomasum.

18345-68
THE INFLUENCE OF THE HOST CELL, IONIC STRENGTH AND CHYMOTRYPSIN ON FOOT-AND-MOUTH DISEASE VIRUS ELECTROPHORETIC MOBILITY.

G F V Woude R Trautman H L Bachrach
Arch Gesamte Virusforsch 20(1):71-80 REF
Feb 1967 448.3 AR23

Biochemistry, Biophysics, Chymotrypsin, Electrophoresis, Foot-and-mouth disease virus.

Abstract

18346-68
DETECTION OF ANTIBIOTIC-FAST STAPHYLOCOCCI IN OTITIS EXTERNA IN DOGS. (JA)

H Yagi
Jap Vet Med Ass J 21(3):102-106
1968 41.9 J275

Antibiotics, Diagnosis, Dogs, Otitis, Staphylococcus, Therapeutics.

ARTHROPODS

18347-68
FURTHER EVALUATION OF ANIMAL SYSTEMIC INSECTICIDES, 1967.

R O Drummond
J Econ Entomol 61(5):1261-1264 REF
15 Oct 1968 421 J822

Animals, Biochemistry, Cattle, Chemical control (insects), Feed, Hypoderma, Insecticides, Spraying, Tables (data).

18348-68
TICK RESISTANCE IN CATTLE: ITS STABILITY AND CORRELATION WITH VARIOUS GENETIC CHARACTERISTICS.

J Francis G C Ashton
Australian J Exp Biol Med Sci 45(2):131-140 REF
Apr 1967 442.8 AU7

Boophilus microplus, Cattle, Genetics, Ixodidae, Surveys.

Abstract

18349-68
HORN FLY CONTROL WITH COUMAPHOS.

M J Janes B W Hayes D W Beardsley
J Econ Entomol 61(5):1176-1178
15 Oct 1968 421 J822

Biochemistry, Cattle, Chemical control (insects), Coumaphos, Haematobia irritans, Insect pests, Insecticide application, Insecticides, Population.

18350-68
NORTHERN FOWL MITE CONTROL ON MATURE TURKEYS ON RANGE.

J L Lancaster J S Simco
J Econ Entomol 61(5):1471-1472
15 Oct 1968 421 J822

Biochemistry, Chemical control (insects), Insecticide application, Mites, Ornithonyssus sylvarum, Research, Spraying, Turkeys.

18351-68
RESISTANCE OF CATTLE TO THE TICK BOOPHILUS MICROPLUS (CANESTRINI). II. STAGES OF THE LIFE CYCLE OF THE PARASITE AGAINST WHICH RESISTANCE IS MANIFEST.

J A Roberts
J Parasitol 54(4):667-673
Aug 1968 448.8 J824

Boophilus microplus, Cattle, Immunity, Injections, Insect morphology, Ixodidae, Larvae, Parasitic insects, Population, Time.

18352-68
CATTLE-MOSQUITO STUDY BEGINS IN SOUTH TEXAS.

D P Sanders
Pest Contr 36(6):32,34,46,48
Jun 1968 449.8 EX8

Aedes sollicitans, Cattle, Culicidae, Insect control.

PARASITES

18353-68
EFFECT OF DESICCATION ON SURVIVAL OF

THE FREE-LIVING STAGES OF TRICHOSTRONGYLUS COLUBRIFORMIS.

F L Andersen N D Levine

J Parasitol 54(1):117-128 REF

Feb 1968 448.8 J824

Cattle, Defoliants, Larvae, Nematodes, Parasitism, Sheep, Temperature, Trichostrongylus colubriformis.

Abstract: Desiccation of the 3rd stage larvae of *T. colubriformis* was beneficial to their survival at temperatures below freezing and at 35 and 50 C, but was indifferent effect at intermediate temperatures of 20 and 25C.

18354-68

A NEW TECHNIQUE FOR THE RECOVERY OF FASCIOLA GIGANTICA EGGS FROM CATTLE FAECES.

P K Bitakaramire

Bull Epizoot Dis Afr 15(4):389-391

Dec 1967 41.8 B872

Cattle, Equipment, Fasciola gigantica, Faeces, Trematoda.

18355-68

AN ELECTRON MICROSCOPE STUDY OF THE TEGUMENT AND ASSOCIATED STRUCTURES OF THE PROCERCOID OF DIPHYLLOBOOTHRIUM LATUM (L.).

T Braten

Z Parasitenk 30(1):95-103

1968 442.8 Z33F

Cestoda, Cytology, Diphylobothrium latum, Electron microscopes, Epithelium, Morphology. English and German abstract

Abstract

18356-68

THE FINE STRUCTURE OF THE TEGUMENT OF DIPHYLLOBOOTHRIUM LATUM (L.). A COMPARISON OF THE PLEROCERCOID AND ADULT STAGES.

T Braten

Z Parasitenk 30(1):104-112

1968 442.8 Z33F

Cytology, Diphylobothrium latum, Electron microscopy, Epithelium, Histology. English and German abstract

Abstract

18357-68

CHANGES IN THE EFFICACY OF THREE ANTHELMINTICS DURING THE MATURATION OF A NEMATODE (TRICHINELLA SPIRALIS).

W C Campbell R K Hartman

J Parasitol 54(1):112-116

Feb 1968 448.8 J824

Anthelmintics, Drugs, Metamorphosis, Methyridine, Nematodes, Pyrantel tartrate, Stomach, Tetramisole, Thiazolyl-henzimidazole, 2-(4-, Trichinella spiralis.

Abstract: The results suggest that the mode of action of thiabendazole against trichinella is fundamentally different from that of the other two compounds, or that the relationship between efficacy and the route of administration of a given drug changes during the maturation phase of trichinella.

18358-68

PATHOLOGICAL CHANGES OF BLOOD DEPENDING ON SEX AND AGE OF RABBITS EXPERIMENTALLY INFECTED WITH A SHEEP STRAIN OF STRONGYLOIDES PAPILLOSUS.

L Chomiez

Acta Parasitol Polon 14(15-27):251-263 REF

1966 436.8 AC8

Aging, Blood analysis, Blood cells, Rabbits, Sex, Strongyloides. English and Polish abstract

Abstract

18359-68

OBSERVATIONS ON THE EFFECTS OF PYRINUM PAMOATE ON STRONGYLOIDES STERCORALIS. (JAP)

R Doi

Jap J Parasitol 16(1):36-42

Feb 1967 436.8 J27

Ancylostoma caninum, Anthelmintics, Pyrinium pamoate, Strongyloides. English abstract

Abstract

18360-68

HYDATID LATEX AGGLUTINATION WITH SCOLEX AND CRUDE POLYSACCHARIDE ANTIGENS.

A Fischman J L Allen

Australian J Exp Biol Med Sci 45(2):221-223

Apr 1967 442.8 AU7

Antigens, Cestoda, Echinococcosis, Serodiagnosis.

Abstract

18361-68

DIAGNOSIS, TREATMENT, AND PREVENTIVE THERAPY FOR HEARTWORMS.

J W Henderson

Amer Vet Med Ass J 151(12):1737-1739

15 Dec 1967 41.8 AM3

Diagnosis, Dirofilaria immitis, Dogs, Therapeutics.

18362-68

DIROFILARIA IMMITIS PARASITIC IN THE SPINAL CAVITY OF A DOG. (JA)

K Hongo

Jap Vet Med Ass J 20(9):381

1967 41.9 J275

Animal diseases, Dirofilaria immitis, Dogs, Nematodes.

18363-68

EXPERIMENTAL INFECTION OF GNOSTOBOTIC TENEBRIO MOLITOR AND WHITE RATS WITH HYMENOLEPIS DIMINUTA (CESTODA: CYCLOPHYLLIDEA).

B B Houser W C Burns

J Parasitol 54(1):69-73

Feb 1968 448.8 J824

Autopsies, Benzalkonium chloride, Germ-free life, Hymenolepis diminuta, Parasitism, Rats, Tenebrio molitor, Tribolium confusum.

Abstract: *T. molitor* eggs were sterilized with zephiran chloride, hatched, and the larvae and adults reared under germ-free conditions.

18364-68

QUANTITATIVE STUDIES ON THE KINETICS OF ESTABLISHMENT AND EXPULSION OF INTESTINAL NEMATODE POPULATIONS IN SUSCEPTIBLE AND IMMUNE HOSTS. NIPPOSTRONGYLUS BRASILIENSIS IN THE RAT.

E E E Jarrett W F H Jarrett G M Urquhart

Parasitology 58(3):625-639 REF

Aug 1968 448.8 P21

Helminthiasis, Immunity, Kinetics, Measurement, Nematodes, Nippostrongylus brasiliensis, Population, Quantitative analysis, Rats, Research.

18365-68

STUDIES ON PARASITIC GRANULOMA IN THE DOG. (JAP)

H Kitayama M Ohbayashi H Satoh Y Kitamura

Jap J Parasitol 16(1):28-35

Feb 1967 436.8 J27

Dogs, Granuloma, Histology, Nematodes, Toxocara canis. English abstract

Abstract

18366-68

EXPERIMENTAL STUDIES IN MICE ON THE THERAPY OF TRICHINELLOSIS (THIABENDAZOLE, NEGUVON, CORTISONE, AZULEN, SERA). (POL)

Z Kozar M Kozar

Acta Parasitol Polon 14(15-27):133-161 REF

1966 436.8 AC8

Drug therapy, Mice, Therapy, Trichinosis. English and Polish abstracts

Abstract

18367-68

THE BLOOD OF RABBITS INFECTED WITH STRONGYLOIDES PAPILLOSUS AFTER 20 SERIAL PASSAGES THROUGH RABBITS.

I Lewandowska

Acta Parasitol Polon 14(15-27):239-250 REF

1966 436.8 AC8

Biochemistry, Blood analysis, Blood cells, Rabbits, Strongyloides. English and Polish abstract

Abstract

18368-68

REARING LAMBS FREE OF GASTROINTESTINAL NEMATODES.

M E Mansfield J M Lewis G E McKihhen

Amer Vet Med Ass J 151(9):1182-1185 REF

01 Nov 1967 41.8 AM3

Animal husbandry, Lambs, Sheep, Strongyloidiasis.

Abstract: Lambs free of gastrointestinal nematodes were produced from infected-parent stock. Ewes were shorn, and udders washed before lambs nursed. The day-old lambs and their mothers were confined in pens with elevated, slotted floors. The lambs were allowed on pasture at approximately 12 weeks of age. Strongyloid eggs were first observed in lambs when they were approximately 14 months old.

18369-68

LESIONS CAUSED BY THE HEPATIC TREMATODE, METORCHIS CONJUNCTUS, COBOLD, 1860; A COMPARATIVE STUDY IN CARNIVORA.

J H L Mills R S Hirth

J Small Anim Pract 9(1):1-6 REF

Jan 1968 41.8 J8292

Autopsies, Cats, Dogs, Liver, Metorchis conjunctus, Parasitism, Trematoda, Wildlife. English, German and French abstract

Abstract

18370-68

ON THE METACERCARIA OF PROSTHOGONIMUS PUTSCHKOWSKII IN SYMPETROM DECOLORATUM (ODONATA: INSECTA) WITH OBSERVATIONS ON ITS DEVELOPMENT IN CHICKS.

G S Mishra B P Pande

Indian J Vet Sci Anim Husb 37(3):156-164 REF

Sep 1967 41.8 IN22

Autopsies, Chicks, Metacercaria, Odonata, Prosthogonimus putschkowskii, Sympetrum decoloratum, Trematoda.

Abstract

18371-68

HELMINTHIC INFESTATIONS OF PIGLETS WITH REFERENCE TO LESIONS ENCOUNTERED.

G S Mishra B P Pande

Indian J Vet Sci Anim Husb 37(3):143-149 REF

Sep 1967 41.8 IN22

Ascaris lumbricoides, Asearops strongylina, Autopsies, Baby pigs, Cysticereus, Oesophagostomum dentatum, Opisthorchis, Swine.

18372-68

STUDIES ON THE SPRING PHENOMENON IN OVINE HELMINTHIASIS. I. SPRING RISE IN STABLED SHEEP.

B G Procter H C Gibbs

Can J Comp Med Vet Sci 32(1):359-365

Jan 1968 41.8 C162

Haemonchus contortus, Helminthiasis, Larvae, Nematodes, Ova, Parasitism, Sheep.

Abstract: Preparturient treatment of ewes with thiabendazole suppressed spring rise but failed to arrest completely the faecal shedding of nematode ova. Larval studies revealed that *H. contortus* was the major contribution to the spring rise of faecal on a output.

18373-68

A TEMPERATURE STUDY OF THE OVERWINTERING SITE OF THE SHEEP BOT FLY OESTRUS OVIS L.

C E Rogers F W Knapp D Cook M V Crowe

J Parasitol 54(1):164-165

Feb 1968 448.8 J824

Hibernation, Oestrus ovis, Parasitism, Sheep, Temperature

Abstract: Investigations of the overwintering habits of the sheep bot fly necessitated obtaining data on temp of the nasal passages and sinuses. Temperatures of the nasal passage varied directly with the depth at which the readings were taken and with the atmospheric temperatures.

18374-68

ANTHELMINTHIC ACTIVITY OF SOME CARBAMATE DERIVATIVES. (SP)

F Sanz R Jurado A Moral A Relimpio

Rev Iberica Parasitol 26(4):353-359 REF

Oct 1966 436.8 R32

Anthelmintics, Carbamates, Drug therapy, Guinea pigs, Helminths, Mice, Rats, English and Spanish abstract

Abstract

18375-68

PARASITIC DEVELOPMENT OF OBELISCOIDES CUNICULI IN RABBITS.

A E Sollod T J Hayes E J L Soulsby

J Parasitol 54(1):129-132 REF

Feb 1968 448.8 J824

Larvae, Metamorphosis, Nematodes, Obeliscoides cuniculi, Parasitism, Rabbits, Stomach, Trichostrongylosis.

Abstract: Studies on development of *O. cuniculi* infections in New Zealand white rabbits showed that the 2nd ecdysis was complete within 1 hr. of infection and the parasitic 3rd stage larvae penetrated into the gastric mucosa within 24 hours. Similarities between the parasitic development of other trichostrongyles and *O. cuniculi* are discussed.

18376-68

HELMINTHS AS VEHICLES AND SYNERGISTS OF MICROBIAL INFECTIONS.

A W Woodruff

Roy Soc Trop Med Hyg Trans 62(3):446-452 REF

1968 448.9 R813

Ascariasis, Encephalomyocarditis, Epidemiology, Escherichia coli, Helminthiasis, Hog cholera, Human diseases, Infectious diseases, Medicine, Parasitism, Poliomyelitis, Rats, Strongyloides stercoralis, Swine influenza virus, Toxocara canis, Trichinella spiralis.

COMMODITY PROTECTION

STORAGE DISEASES

18377-68

FUNGI IN STORED PRODUCTS.

J H Clarke

Trop Stored Prod Inform 15:3-14 REF

1968 421 T752

Aflatoxin, Agricultural products, Aspergillus, Fungi, Grain, Methodology, Microorganisms, Mycology, Mycotoxicosis, Penicillium, Storage diseases, Temperature.

ARTHROPODS

18378-68

PROPOSED FEDERAL FORMOSAN TERMITE QUARANTINE SAFEGUARDS. BUYER, SELLER.

G G Rohwer

Pest Contr 36(2):29-31

Feb 1968 449.8 EX8

Coptotermes formosanus, Household insects, Insect control, Lumber, Quarantine, Soils, Termites, Timber.

RODENTS AND OTHER PESTS

18379-68

ISOLATION AND PURIFICATION OF METABOLITES FOUND IN THE URINE OF MALE RATS FED ALDRIN AND DIELDRIN.

A K Klein J D Link N F Ives

Ass Offic Anal Chem J 51(4):895-898

Jul 1968 381 AS7

Aldrin, Dieldrin, Metabolites, Rats, Research, Sterilization, Urine.

18380-68

A METHOD FOR EVALUATION OF VACCINES CONTAINING PASTEURILLA MULTOCIDA.

E E Ose O A Muenster

Amer J Vet Res 29(9):1863-1866

Sep 1968 41.8 AM3A

Animal diseases, Antibodies, Antigens, Cattle, Immunity, Immunization, Lethal factors, Mice, Pasteurella multocida, Vaccines.

18381-68

ON THE DEVELOPMENT OF CYSTICERCUS FASCIOLARIS IN ALBINO RAT LIVER AND ITS REACTION ON THE HOST TISSUE.

B B Singh B V Rao

Ceylon Vet J 15(4):121-129 REF

Dec 1968 41.8 C33

Animal diseases, Animal histology, Blood, Cells, Cysts, Cytoplasm, Larvae, Morphology, Research.

18382-68

EFFECT OF RATION MODIFICATIONS ON AFLATOXICOSIS IN THE RAT.

G C Todd W T Shalkop K L Dooley H G Wiseman

Amer J Vet Res 29(9):1855-1861 REF

Sep 1968 41.8 AM3A

Aflatoxicosis, Animal physiology, Antibiotics, Carbohydrates, Cells, Cytoplasm, Histology, Rats, Vitamins.

MICROBIAL CONTAMINATION

18383-68

ESTIMATION OF RADIATION RESISTANCE VALUES OF MICROORGANISMS IN FOOD PRODUCTS.

A Anellis S Werkowski

Appl Microbiol 16(9):1300-1308 REF

Sep 1968 448.3 AP5

Clostridium botulinum, Dosage, Food, Immunity, Kinetics, Microbiology, Microorganisms, Radiation, Statistical methods.

18384-68

DEGRADATION OF DIAZINON BY SYNERGISTIC MICROBIAL ACTION.

H B Gunner B M Zuckerman

Nature 217(5134):1183-1184

23 Mar 1968 472 N21

Arthrobacter, Biochemistry, Carbon isotopes, Chemical reactions, Diazinon, Insecticides, Metabolism, Microbiology, Microorganisms, Streptomyces.

ENVIRONMENTAL CONTAMINATION

18385-68

PREVENTING FISH AND WILDLIFE LOSSES.

E G Hunt

Aerial Appl 5(11):4-6

Nov 1967 333.8 AE8

Fish conservation, Pesticide application, Pesticide residues, Wildlife conservation.

RESIDUES

18386-68

THE EFFECT OF ENVIRONMENTAL AND BIOLOGICAL FACTORS ON THE PERSISTENCE OF MALATHION APPLIED IN LOW VOLUME TECHNIQUE AND EMULSIFIABLE CONCENTRATE FORMS TO COTTON PLANTS.

T M Awad

Diss Abstr Sect B 29(2):644B

Aug 1968 Z5055.U49D53

Biology, Cotton, Environment, Insecticides, Malathion, Pesticide residues.

18387-68

DETERGENTS.

S K Banerji

Water Pollut Contr Fed J 40(6):939-948 REF

Jun 1968 293.8 SE8

Algae, Detergents, Fish, Rats, Water pollution, Water treatment.

18388-68

NOTICE OF FILING OF PETITION REGARDING PESTICIDE CHEMICALS.

R E Duggan

Fed Regist 33(173):12588

05 Sep 1968 L1451

Agricultural chemistry, Alfalfa, Hay, Insecticide residues, Phorate.

18389-68

COMPARATIVE CS-137 CONTENT OF AGRICULTURAL CROPS GROWN IN A CONTAMINATED SOIL.

E D Evans A J Dekker

Can J Plant Sci 48(2):183-188

Mar 1968 450 C16

Cesium isotopes, Field crops, Forage plants, Grain, Grasses, Plant contamination, Radioactive contamination, Soil contamination, Sugar beets, Vegetables.

18390-68

EFFECTS ON GROUNDWATER. MUNICIPAL SOURCES.

B B Ewing L S Lau

Water Pollut Contr Fed J 40(6):1075-1081 REF

Jun 1968 293.8 SE8

Detergents, Industry, Insecticides, Saline water, Water analysis, Water pollution, Water supply.

18391-68

RESPONSE OF EARLY-WEANED PIGS TO AMINO ACID SUPPLEMENTATION OF CORN DIETS.

J T Gallo W G Pond J V Logomarsino

J Anim Sci 27(4):1000-1005 REF

Jul 1968 49 J82

Acids, Amino acids, Biology, Corn, Swine, Weaning.

18392-68

MICROBIOLOGY. GASTROINTESTINAL OUTBREAKS.

E E Geldreich

Water Pollut Contr Fed J 40(6):1052-1068 REF

Jun 1968 293.8 SE8

Bacteria, Epidemiology, Gastroenteritis, Gastrointestinal system, Human diseases, Microbiology, Viruses, Water pollution.

18393-68

DETOXIFICATION OF PESTICIDAL RESIDUES IN FISH AND SHELLFISH.

A B Hallab

Diss Abstr Sect B 29(2):649B

Aug 1968 Z5055.U49D53

Fish, Pesticide residues, Shellfish, Toxicology.

18394-68

EFFECTS ON MICROFAUNA - FRESHWATER.

L D Jensen

Water Pollut Contr Fed J 40(6):1042-1047

Jun 1968 293.8 SE8

Aquatic animals, Ecology, Streams, Water, Water pollution.

18395-68

WATER POLLUTION. EFFECTS OF POLLUTION ON FISH LIFE. GENERAL ASPECTS OF WATER POLLUTION BIOLOGY.

M Katz A K Sparks G I Pederson C E Woelke J Wooley

Water Pollut Contr Fed J 40(6):1007-1033 REF
Jun 1968 293.8 SE8

Biology, Detergents, Fish, Metals, Pesticides, Temperature, Water analysis, Water pollution.

18396-68

TOLERANCES AND EXEMPTIONS FROM TOLERANCES FOR PESTICIDE CHEMICALS IN OR ON RAW AGRICULTURAL COMMODITIES. DIURON.

J K Kirk

Fed Regist 33(128):9609

02 Jul 1968 L1.451

Chemicals, Diuron, Food plants, Herbicides, Pesticide residues.

18397-68

TOLERANCES AND EXEMPTIONS FROM TOLERANCES FOR PESTICIDE CHEMICALS IN OR ON RAW AGRICULTURAL COMMODITIES. ALPHANAPHTHALENEACETIC ACID.

J K Kirk

Fed Regist 33(128):9609-9610

02 Jul 1968 L1.451

Chemicals, Food plants, Naphthaleneacetic acid, Pesticide residues, Pesticides, Plant regulators.

18398-68

TOLERANCES AND EXEMPTIONS FROM TOLERANCES FOR PESTICIDE CHEMICALS IN OR ON RAW AGRICULTURAL COMMODITIES. TRIFLURALIN.

J K Kirk

Fed Regist 33(128):9610

02 Jul 1968 L1.451

Chemicals, Food plants, Herbicides, Pesticide residues, Trifluralin.

18399-68

TOLERANCES AND EXEMPTIONS FROM TOLERANCES FOR PESTICIDE CHEMICALS IN OR ON RAW AGRICULTURAL COMMODITIES. ETHYL 4,4'-DICHLOROBENZILATE.

J K Kirk

Fed Regist 33(130,PT.1):9707-9708

04 Jul 1968 L1.451

Chemicals, Chlorobenzilate, Food plants, Pesticide residues, Pesticides.

18400-68

NIAGARA NIA-10242 INSECTICIDE RESIDUES: THEIR PERSISTENCE IN COASTAL BERMUDAGRASS, CORN, AND SILAGES, AND THEIR EFFECT, FED IN SILAGE, ON LACTATING COWS.

D B Leuck M C Bowman J C Johnson E W Beck R S Lowery

J Econ Entomol 61(5):1349-1352 REF

15 Oct 1968 421 J822

Biochemistry, Cattle, Corn, Cynodon dactylon, Dihydro-2,2-dimethyl-7-benzofuranyl methylcarbamate, 2,3-, Feed, Insecticide residues, Milk analysis, Silage, Tables (data).

18401-68

INSECTICIDE RESIDUES IN PEST CONTROL.

L Lykken

Agr Chem 23(8):18-20,22

Aug 1968 381 AG8

Accident prevention, Animals, Biochemistry, Chemical control (pests), Decomposition, Immunity, Insecticide residues, Insecticides, Plant hardness, Plants, Public health, Time.

18402-68

MACROINVERTEBRATES. FRESH WATER.

K M Mackenthun L E Keup

Water Pollut Contr Fed J 40(6):1033-1042 REF

Jun 1968 293.8 SE8

Environment, Invertebrates, Pesticides, Radioactivity, Water, Water pollution.

18403-68

RESIDUES OF DIAZINON, COUMAPHOS, CIODRIN, METHOXYCHLOR, AND ROTENONE IN COW'S MILK FROM TREATMENTS SIMILAR TO THOSE USED FOR ECOTOPARASITE AND FLY CONTROL ON DAIRY CATTLE, WITH NOTES ON SAFETY OF DIAZINON AND CIODRIN TO CALVES.

J G Matthyse D Lisk

J Econ Entomol 61(5):1394-1398 REF

15 Oct 1968 421 J822

Accident prevention, Biochemistry, Chemical control (insects), Ciodrin, Coumaphos, Dairy cattle, Diazinon, Insecticide application, Insecticide residues, Methoxychlor, Milk analysis, Research, Rotenone.

18404-68

AGRICULTURAL (LIVESTOCK) WASTES.

J R Miner

Water Pollut Contr Fed J 40(6):1150-1158 REF

Jun 1968 293.8 SE8

Bacteria, Cattle, Fertilizers, Laboratories, Livestock, Poultry, Water pollution.

18405-68

ANAEROBIC PROCESSES. MICROBIOLOGY AND MECHANISM.

F G Pohland

Water Pollut Contr Fed J 40(6):948-955 REF

Jun 1968 293.8 SE8

Anaerobic bacteria, Kinetics, Mechanics, Microbiology, Water, Water pollution.

18406-68

NOTE ON THE DETERMINATION OF CARBARYL RESIDUES IN HEN SKIN.

E W Pol

Ass Offic Anal Chem J 51(4):901

Jul 1968 381 AS7

Anoplura, Carbaryl, Chickens, Dimethyl sulfoxide, Extracts, Hexane, Insecticides, Methylene chloride, Skin.

18407-68

OXYGEN SAG AND STREAM SELF-PURIFICATION.

E C Tsvoglov R E DeLoach

Water Pollut Contr Fed J 40(6):1068-1071 REF

Jun 1968 293.8 SE8

Streams, Temperature, Water pollution, Water treatment.

18408-68

ANALYTICAL PROBLEMS: MERCURY IN THE GENERAL ENVIRONMENT.

G Widmark

Oikos (SUP.9):9-10

1967 410 OI4

Assay, Chromatography, Environment, Fungicides, Inorganic compounds, Mercury, Metabolites, Pesticide residues, Research.

TOXICOLOGY

18409-68

STUDIES ON THE LABORATORY SOILING OF MILKING EQUIPMENT.

B Bacic C M Cousins L F L Clegg

J Dairy Res 35(2):247-256

Jun 1968 44.8 J823

Antiseptics, Bacteria, Equipment, Laboratories, Milk.

18410-68

THE TOXICITY AND DISTRIBUTION OF MERCURY.

H Berlin

Oikos (SUP.9):25-26

1967 410 OI4

Absorption, Autoradiography, Food, Hygiene, Mercury, Mercury compounds, Methodology, Mice, Research, Surveys, Toxicology.

18411-68

SWEDISH STUDIES OF GAME THAT HAD BEEN FOUND DEAD AS WELL AS SPECIMENS THAT HAD BEEN SHOT.

K Borg

Oikos (SUP.9):38

1967 410 OI4

Agriculture, Biochemistry, Forestry, Game animals, Mercury compounds, Poisoning, Research, Seeds, Wildlife diseases.

18412-68

PYRROLIZIDINE ALKALOID POISONING IN CALVES.

M E Fowler

Amer Vet Med Ass J 152(8):1131-1137 REF

15 Apr 1968 41.8 AM3

Alfalfa, Alkaloids, Amsinckia intermedia, Dairy cattle, Feed, Fibrosis, Liver, Mortality, Pyrrolizidine, Senecio vulgaris, Toxicology.

18413-68

MANGANESE TOXICITY IN CELERY.

P A Gallagher

Nature 216(5113):391-392

28 Oct 1967 472 N21

Aluminum, Celery, Hydrogen-ion concentration, Leaves, Manganese, Plant growth inhibitors, Plant physiology, Soil series, Toxicology.

18414-68

TOXIC BLUE-GREEN ALGAE IN SASKATCHEWAN.

U T Hammer

Can Vet J 9(10):221-229 REF

Oct 1968 41.8 R3224

Algae, Aquatic birds, Cyanophyta, Fish, Poisoning, Wildlife. French summary

18415-68

ON THE PRINCIPAL WAY OF ATTACK OF ROTENONE IN FISH.

K-e Oberg

Arkiv Zool 18(3-4):217-220 REF

1967 410.9 SV22

Animal physiology, Biochemistry, Fish, Rotenone, Toxicology.

18416-68

ISOLATION OF A NEW TOXIN FROM CULTURES OF ASPERGILLUS FLAVUS.

J V Rodricks A D Campbell M J Verrett K R

Henery-Logan

Nature 217(5129):668

17 Feb 1968 472 N21

Aflatoxin, Aspergillus flavus, Chick embryos, Culture media, Infrared spectra, Injections, Metabolites, Research, Toxins.

18417-68

TOXIC EFFECTS OF ODOROUS TRACE ORGANICS.

J W Smith S G Grigoropoulos

Amer Water Works Ass J 60(8):969-979 REF

Aug 1968 292.9 AM32J

Fish, Odors, Organic compounds, Pesticides, Toxicology, Water analysis, Water pollution.

Abstract

18418-68

THE TOXICOLOGY OF DIFFERENT ORGANO-MERCURIALS USED AS FUNGICIDES.

A Swensson

Oikos (SUP.9):27-29

1967 410 OI4

Absorption, Biochemistry, Fungicides, Mammals, Mercury compounds, Poisoning, Toxicology.

18419-68

MORPHOLOGICAL AND PHYSIOLOGICAL ASPECTS OF SPOROGONY AND OOCYST VIABILITY IN THE PROTOZOAN PARASITES EIMERIA TENELLA AND EIMERIA STIEDAE (COCCIDIA).

TOXICOLOGY

18420-68

G F Wagenbach

Diss Abstr Sect B 28(11):4809B

May 1968 Z5055.U49D53

Chickens, Deoxyribonucleic acid, Eimeria stiedae, Eimeria tenella, Insect physiology, Rabbits, Ribonucleic acid, Sodium hypochlorite

18420-68

A REVIEW OF DRUG TOXICITY IN THE CAT.

G T Wilkinson

J Small Anim Pract 9(1):21-32 REF

Jan 1968 41.8 J8292

Benzyl benzoate, Cats, Chlorinated hydrocarbons, Drug therapy, Organophosphorus compounds, Rotenone, Toxicology. English, German and French abstract

Abstract

18421-68

EFFECTS OF PLANT GROWTH REGULATORS AND OTHER COMPOUNDS ON FLOW OF LATEX IN *HEVEA BRASILIENSIS*.

F D Abraham S G Boatman G E Blackman R G Powell

Ann Appl Biol 62(1):159-173 REF

Aug 1968 442.8 AN72

Biochemistry, Chemicals, Hevea brasiliensis, Latex, Plant physiology, Plant regulators.

18422-68

EFFECT OF CULTURE FILTRATES OF *PSEUDOMONAS PHASEOLICOLA* ON THE GROWTH OF EXCISED ROOTS AND CALLUS TISSUE CULTURES OF BEAN. (ABSTRACT).

Y P S Bajaj A W Saettler

Phytopathology 58(8):1041-1042

Aug 1968 464.8 P56

Beans, Biochemistry, Culture media, Filters, Plant physiology, Pseudomonas phaseolicola, Roots, Tissues.

18423-68

THE SELECTIVITY AND ACTIVITY OF S-TRIAZINE HERBICIDES IN BANANA PLANTS.

R C Barba

Diss Abstr Sect B 29(2):431B-432B

Aug 1968 Z5055.U49D53

Bananas, Biochemistry, Plant physiology, Plant translocation, S-triazine.

18424-68

INFLUENCE OF MICRO-ORGANISMS ON THE DISTRIBUTION IN ROOTS OF PHOSPHATE LABELLED WITH PHOSPHORUS-32.

D A Barber J Sanderson R S Russell

Nature 217(5129):644

17 Feb 1968 442.8 N21

Autoradiography, Biochemistry, Ions, Microorganisms, Phosphates, Phosphorus isotopes, Plant diseases, Plant translocation, Roots.

18425-68

EFFECT OF THIRAM UPON GLUCOSE CATABOLISM BY *FUSARIUM OXYSPORUM*. (ABSTRACT).

J J Bates B G Tweedy

Phytopathology 58(8):1042

Aug 1968 464.8 P56

Biochemistry, Fungi, Fusarium oxysporum, Glucose, Metabolism, Plant physiology, Thiram.

18426-68

INTERACTION OF GROWTH REGULATORS IN THE SENESCENCE OF *NASTURTIUM* LEAF DISKS.

L Beevers F S Guernsey

Nature 214(5091):941-942

27 May 1967 472 N21

Biochemistry, Gibberellic acid, Kinetin, Leaves, Plant hormones, Plant physiology, Plant regulators, Research, Ribonucleic acid, Trapaeolum majus.

18427-68

PECTOLYTIC ENZYME PRODUCTION BY *PHYMATOTRICHUM OMNIVORUM*. (ABSTRACT).

H S Black

Phytopathology 58(8):1044

BIBLIOGRAPHY

Aug 1968 464.8 P56

Fungi, Phymatotrichum omnivorum, Plant enzymes, Plant physiology.

18428-68

INORGANIC COMPOSITION AND MICROSCOPY OF CITRUS ROOTS GROWN UNDER SEVERAL COPPER AND SOIL AMENDMENT CONDITIONS.

E A Brams

Diss Abstr Sect B 29(1):12B-13B

Jul 1968 Z5055.U49D53

Chemicals, Citrus, Copper, Inorganic compounds, Morphology, Plant translocation, Roots, Soils, Tissues, Xylem.

18429-68

GERMINATION OF *FOMES APPLANATUS* BASIDIOSPORES. (ABSTRACT).

T S Jr Brown

Phytopathology 58(8):1044

Aug 1968 464.8 P56

Fomes applanatus, Plant physiology, Seed germination, Spores.

18430-68

AUXIN EFFECTS ON THE ACTIVITY OF PECTINTRANSLEIMINASE IN VITRO.

T A Bull

Phytochemistry 7(2):209-211

Feb 1968 450 P5622

Assay, Culture media, Pectin transesterase, Plant growth inhibitors, Plant hormones, Plant metabolism.

18431-68

EFFECT OF ANAEROBIOSIS ON GERMINATION AND VIABILITY OF RHIZOPUS STOLONIFER SPORANGIOSPORES. (ABSTRACT).

J Bussell P M Buckley N F Sommer

Phytopathology 58(8):1046

Aug 1968 464.8 P56

Anaerobic bacteria, Plant physiology, Rhizopus stolonifer, Seed germination, Spores.

18432-68

AUXOTROPHIC MUTANTS OF *PHYTOPHTHORA* SPECIES. (ABSTRACT).

J Castro G A Zentmyer W L Belser

Phytopathology 58(8):1046

Aug 1968 464.8 P56

Fungi, Mutations, Phytophthora capsici, Phytophthora drechsleri, Plant physiology.

18433-68

LABORATORY TESTS OF FUNGICIDES AGAINST *PERONOSPORA PARASITICA* (PERS. EX. FR.) FR.

A G Channon R J Hampson

Ann Appl Biol 62(1):23-33 REF

Aug 1968 442.8 AN72

Biochemistry, Fungicides, Laboratories, Peronospora parasitica, Research.

18434-68

THE EFFECT OF SPECIES OF ALLIUM ON SOIL BACTERIA IN RELATION TO GERMINATION OF *SCLEROTIA* OF *SCLEROTIUM CEPIVORUM* BERK.

J R Coley-Smith D J Dickinson J E King R W Holt

Ann Appl Biol 62(1):103-111 REF

Aug 1968 442.8 AN72

Allium, Antibiotics, Bacterial diseases (plants), Plant biochemistry, Plant extracts, Sclerotium cepivorum, Soil bacteria.

18435-68

DISPERSAL PATTERNS OF *MONILINIA LAXA* SPORES IN PEACH, PRUNE, APRICOT, AND ALMOND TREES DURING EARLY SPRING. (ABSTRACT).

J B Corbin

Phytopathology 58(8):1047

Aug 1968 464.8 P56

Almonds, Apricots, Monilinia laxa, Peaches, Prunes, Seed dissemination, Spores, Temperature, Trees.

18436-68

EFFECT OF TEMPERATURE ON GERMINATION OF *PODOSPHAERA LEUCOTRICHA* CONIDIA. (ABSTRACT).

D L Coyier

Phytopathology 58(8):1047-1048

Aug 1968 464.8 P56

Fungus diseases (plants), Podosphaera leucotricha, Seed germination, Temperature.

18437-68

PLANT GROWTH REGULATIONS IN *DITYLENCHUS DIPSACI*, *DITYLENCHUS TRIFORMIS* AND HOST TISSUES.

H G Cutler

Diss Abstr Sect B 28(11):4445B

May 1968 Z5055.U49D53

Biochemistry, Chloroform, Chromatography, Ditylenchus dipsaci, Ditylenchus triformis, Extracts, Infrared spectra, Methanol, Plant physiology, Plant regulators, Tissues. The hosts were: Pyrenochaeta terrestris and Medicago sativa. No growth promoting substances were detected in turbatrix aceti.

18438-68

CHARACTERISTICS OF A SEASONAL POPULATION OF AIRBORNE *FOMES FOMENTARIUS* BASIDIOSPORES. (ABSTRACT).

R C DeGroot J L Prentice

Phytopathology 58(8):1048

Aug 1968 464.8 P56

Basidiospores, Fomes fomentarius, Plant physiology, Population statistics, Properties, Reproduction.

18439-68

IDENTIFICATION OF *XANTHOMONAS* SPECIES BY ACRYLAMIDE-GEL DISC ELECTROPHORESIS OF SOLUBLE BACTERIAL PROTEINS. (ABSTRACT).

T A El-Sharkawy D Huisling

Phytopathology 58(8):1049

Aug 1968 464.8 P56

Acrylamide, Bacteria, Electrophoresis, Gels, Plant biochemistry, Proteins, Xanthomonas.

18440-68

USE OF FLUORESCENT BRIGHTENER AS AID TO STUDIES OF FUNGISTASIS AND NEMATOPHAGOUS FUNGI IN SOIL.

J Eren D Pramcr

Phytopathology 58(5):644-646 REF

May 1968 464.8 P56

Arthrobotrys conoides, Fluorescent dyes, Nematodes, Soil fungi.

18441-68

SWEDISH RESTRICTIONS CONCERNING THE USE OF MERCURY COMPOUNDS FOR SEED DISINFECTION.

H Esbo

Oikos (SUP.9):18

1968 410 O14

Antiseptics, Biochemistry, Drug therapy, Mercury compounds, Seed-borne plant diseases, Seedlings.

18442-68

EFFECT OF FUNGAL ESTROGEN F-2 ON THE PRODUCTION OF PERITHECIA BY *FUSARIUM ROSEUM* GRAMINEARUM. (ABSTRACT).

C P Eugenio

Phytopathology 58(8):1049-1050

Aug 1968 464.8 P56

Culture media, Estrogens, Fungi, Fusarium roseum, Perithecia, Plant physiology.

18443-68

THE INTERRELATIONSHIPS OF *RHIZOCTONIA SOLANI* AND *HELMINTHOSPORIUM VAGANS*, NITROGEN, AND VARIETY ON ALKALOIDS IN *FESTUCA ARUNDINACEA*. (ABSTRACT).

C E Gentry L Henson R A Chapman

Phytopathology 58(8):1051

Aug 1968 464.8 P56

Alkaloids, Biochemistry, Festuca arundinacea, Helminthosporium vagans, Nitrogen, Rhizoctonia solani.

- 18444-68**
DISC ELECTROPHORESIS OF SONIC EXTRACTS OF FIVE PHYTOPATHOGENIC BACTERIA. (ABSTRACT).
H S Gill M N Khare
Phytopathology 58(8):1051-1052
Aug 1968 464.8 P56
Bacteria, Biochemistry, Electrophoresis, Erwinia, Plant extracts, Xanthomonas.
- 18445-68**
EXTENT OF ASPERGILLUS FLAVUS AND FUSARIUM OXYSPORUM GERMINATION IN SOIL AND IN THE RHIZOSPHERE OF PEANUT. (ABSTRACT).
G J Griffin
Phytopathology 58(8):1052
Aug 1968 464.8 P56
Aspergillus flavus, Fusarium oxysporum, Peanuts, Plant physiology, Rhizosphere, Seed germination, Spores.
- 18446-68**
INDUCTION OF FLORAL HYPERSEXUALITY IN IBERIS AMARA L. (CRUCIFERES) INFLUENCED BY 2,4-DICHLOROPHENOXYACETIC ACID. (FR)
M-C Guet
Acad Sci Compt Rend Ser D Sci Nat 265(20):1475-1484
13 Nov 1967 505 P21
Cruciferae, D, 2,4-, Plant biochemistry, Plant morphology, Plant reproduction. French summary
- 18447-68**
ELECTRON MICROSCOPIC STUDIES OF THE NERVOUS SYSTEM OF TRICHODORUS CHRISTIEI (ABSTRACT).
H Hirumi T Chen
Phytopathology 58(8):1053
Aug 1968 464.8 P56
Electron microscopes, Nervous system, Plant physiology, Research, Trichodorus christiei.
- 18448-68**
EFFECT OF DEFOLIANTS ON CARBOHYDRATE AND NITROGEN METABOLISM IN COTTON PLANT LEAVES. (RUS)
A I Imamaliyev P K Baretas M I Rizajeva
Fiziol Rast 15(1):74-83 REF
Jan 1968 450 F58
Carbohydrates, Cotton, Decomposition, Defoliants, Leaves, Nitrogen, Plant metabolism. English summary
- 18449-68**
COMPARISON OF THE EFFECTS OF GIBBERELLIC ACID AND AFLATOXIN IN GERMINATING SEEDS.
H C Jones H S Black A M Altschul
Nature 214(5084):171-172 REF
08 Apr 1967 472 N21
Aflatoxin, Cotton, Deoxyribonucleic acid, Gibberellin acid, Ribonucleic acid, Seed germination, Seeds.
- 18450-68**
SURVIVAL AND GROWTH OF FOMES ANNOSUS AT HIGH CONCENTRATIONS OF BORAX. (ABSTRACT).
J W Koenigs
Phytopathology 58(8):1056
Aug 1968 464.8 P56
Agar, Biochemistry, Borax, Fomes annosus, Plant hardiness, Plant physiology.
- 18451-68**
RED PINE NEEDLE STRUCTURE.
S L Krugman N B Critchfield
Nature 217(5129):685-686
17 Feb 1968 472 N21
Biochemistry, Greenhouse culture, Herbicides, Leaves, Pinus resinosa, Plant anatomy, Plant physiology, Seedlings. In relation to response to herbicides.
- 18452-68**
TELIOPORE GERMINATION OF PUCCINIA RECONDITA F. SP. TRITICI (ABSTRACT).
T A Kucharek H C Jr. Young
Phytopathology 58(8):1056
Aug 1968 464.8 P56
Fungus diseases (plants), Plant physiology, Puccinia recondita, Seed germination, Teliospores, Wheat.
- 18453-68**
ACTIVE UPTAKE OF HELMINTHOSPORIUM CARBONUM TOXIN AND ITS EFFECT ON CO₂ DARK FIXATION BY CORN. (ABSTRACT).
M S Kuo R P Scheffer
Phytopathology 58(8):1056
Aug 1968 464.8 P56
Absorption, Carbon dioxide, Corn, Helminthosporium carbonum, Metabolism, Plant physiology, Plant translocation, Toxicology.
- 18454-68**
PHOSPHORUS CONTENT DURING DEVELOPMENT OF CLAVICEPS PURPUREA.
J Kybal J Majer I Komersova W D Wani
Phytopathology 58(5):647-650 REF
May 1968 464.8 P56
Claviceps purpurea, Fungi, Phosphorus, Poisonous fungi.
- 18455-68**
SPORULATION OF CEPHALOSPORIUM GREGATUM ON NATURALLY INFESTED SOYBEAN STRAW. (ABSTRACT).
P Y Lai J M Dunleavy
Phytopathology 58(8):1056-1057
Aug 1968 464.8 P56
Cephalosporium gregatum, Plant physiology, Seed germination, Soybeans, Spores, Straw.
- 18456-68**
A BIOCHEMICAL ROLE FOR BORON.
S G Lee
Diss Abstr Sect B 29(1):45B
Jul 1968 Z5055.U49D53
Biochemistry, Boron, Electrophoresis, Enzymes, Leaves, Plant metabolism, Sunflowers.
- 18457-68**
LOCATION OF UNIQUE SEQUENCES IN TOBACCO MOSAIC VIRUS RIBONUCLEIC ACID.
S Mandeles
J Biol Chem 243(13):3671-3674 REF
10 Jul 1968 381 J824
Dodecyl sodium sulfate, Mosaic (tobacco), Plant biochemistry, Proteins, Ribonucleic acid, Tobacco, Virus diseases (plants).
- 18458-68**
ELECTRON MICROGRAPHS OF RHIZOPUS STOLONIFER SPORANGIOSPORES SUBJECTED TO CHILLING. (ABSTRACT).
T T Matsumoto P M Buckley N F Sommer
Phytopathology 58(8):1059
Aug 1968 464.8 P56
Culture media, Electron microscopes, Plant physiology, Rhizopus stolonifer, Temperature.
- 18459-68**
OXALATE BIOSYNTHESIS AND PATHWAYS FOR GLUCOSE CATABOLISM IN SCLEROTIUM ROLFII. (ABSTRACT).
D - Maxwell
Diss Abstr Sect B 29(2):443B
Aug 1968 Z5055.U49D53
Biochemistry, Glucose, Metabolism, Oxalates, Plant physiology, Sclerotium rolfii.
- 18460-68**
OXALIC ACID BIOSYNTHESIS BY SCLEROTIUM ROLFII. (ABSTRACT).
D P Maxwell D F Bateman
Phytopathology 58(8):1059
Aug 1968 464.8 P56
Biochemistry, Oxalic acid, Plant physiology, Sclerotium rolfii.
- 18461-68**
TEMPERATURE EFFECTS ON PLEUROTUS OSTREATUS SPORE PRODUCTION (ABSTRACT).
F I McCracken
Phytopathology 58(8):1059
Aug 1968 464.8 P56
Plant physiology, Pleurotus ostreatus, Reproduction, Spores, Temperature.
- 18462-68**
LIGHT STIMULATED BIOSYNTHESIS OF GIBBERELLINS IN FUSARIUM MONILIFORME.
D Mertz W Henson
Nature 214(5090):844-846
20 May 1967 472 N21
Biochemistry, Chromatography, Culture media, Extracts, Fungi, Fusarium moniliforme, Gibberellins, Light, Metabolism, Research, Tables (data).
- 18463-68**
PHYSIOLOGY OF GERMINATION OF CHLAMYDOSPORES OF PHYTOPHTHORA CINNAMOMI.
S M Mircetich G A Zentmyer J B Kendrick
Phytopathology 58(5):666-671 REF
May 1968 464.8 P56
Chlamydospores, Fungi, Nutrition, Phytophthora cinnamomi, Spore germination.
- 18464-68**
EFFECT OF CALCIUM AVAILABILITY ON ALFALFA GROWN IN CALCAREOUS HIGH SODIUM SOILS.
H I Nightingale
Diss Abstr Sect B 29(1):1B-2B
Jul 1968 Z5055.U49D53
Alfalfa, Calcium, Chemicals, Extracts, Leaves, Nutrient solutions (plants), Roots, Sodium, Soils.
- 18465-68**
CHROMOSOMAL ALTERNATIONS IN PEARL MILLET INDUCED BY GAMMARAYS.
J V Pantulu
Nature 213(5071):101-102
07 Jan 1967 472 N21
Chromosomes, Gamma rays, Meiosis, Pearl millet, Plant genetics, Plant mutation, Pollen.
- 18466-68**
A PHYSIOLOGIC-GENETIC STUDY OF THE DIFFERENTIAL RESPONSE OF NAVY BEANS (PHASEOLUS VULGARIS L.) TO ZINC.
D E Polson
Diss Abstr Sect B 29(2):450B-451B
Aug 1968 Z5055.U49D53
Biochemistry, Genetics, Kidney beans, Plant physiology, Research, Zinc.
- 18467-68**
WOUND-INDUCED GIBBERELLINS.
L Rappaport M Sachs
Nature 214(5093):1149-1150
10 Jun 1968 472 N21
Autoradiography, Biochemistry, Biological assay, Deoxyribonucleic acid, Gibberellins, Metabolism, Nucleic acids, Plant injuries, Potatoes, Ribonucleic acid.
- 18468-68**
RED LIGHT INDUCTION OF GIBBERELLIN SYNTHESIS IN LEAVES.
D M Reid J B Clements D J Carr
Nature 217(5128):580-582 REF
10 Feb 1968 472 N21
Barley, Biochemistry, Gibberellin acid, Irradiation, Leaves, Light, Metabolism, Photoperiodism, Time.
- 18469-68**
STUDIES ON THE FUNGICIDICITY OF CAPTAN. VI. DECOMPOSITION OF 35S-LABELLED CAPTAN BY NEUROSPORA CRASSA CONIDIA.
D V Richmond E Somers
Ann Appl Biol 62(1):35-43
Aug 1968 442.8 AN72
Biochemistry, Captan, Decomposition, Fungicides, Isotopes, Neurospora crassa, Research, Sulfur.

TOXICOLOGY

18470-68

18470-68

AUXIN-INDUCED ELIMINATION OF A PROTEIN IN BEAN HYPOCOTYL.
I V Sarkissian I C Spelsberg
Nature 214(5085):319-320
15 Apr 1968 472 N21

Culture media, Electrophoresis, Indoleacetic acid, Kidney beans, Plant extracts, Plant physiology, Plant regulators, Proteins, Research, Seedlings.

18471-68

HERBICIDAL COMPOSITION AND METHOD. PATENT 3,407,056.

H Schwartz

Us Patent Office Offic Gaz 855(4):1021

22 Oct 1968 156.65 OF2

Herbicides, Patents, Plant physiology, Plant regulators.

18472-68

AMINO ACID-(PHENYLAZO)-PHENYL-DERIVATIVES. XXIII. INVESTIGATION OF THE PHYTOTONIC EFFECT OF THE ANTIPODES OF ALANINE-AND PHENYLALANINE-4-(PHENYLAZO)-PHENYLAMIDES AGAINST VARIOUS PLANT SPECIES. (GE)

P von Schwenk A Barth

Biol Zentralbl 87(1):21-32 REF

Feb 1968 442.8 B523

Amino acids, Herbicides, Plant biochemistry, Plant physiology, Toxicology. English and german abstract

Abstract

18473-68

STOMATAL MOVEMENTS; A YEARLY RHYTHM.

G Seidman W B Riggan

Nature 217(5129):684-685

17 Feb 1968 472 N21

Air pollution, Annual plants, Barometric pressure, Biological clocks, Humidity, Light, Plant physiology, Plants, Stomata, Temperature.

18474-68

METABOLISM OF AMITROLE (3-AMINO-1,2,4-TRIAZOLE) IN RELATION TO THE DIFFERENTIAL SUSCEPTIBILITY OF CIRSIUM ARVENSE (L.) SCOP. ECOTYPES.

L W Smith

Diss Abstr Sect B 28(11):4450B

May 1968 Z5055.U49D53

Amitrole, Biochemistry, Cirsium arvense, Culture media, Kidney beans, Leaves, Light, Metabolites, Plant ecology, Plant hardiness, Plant metabolism, Plant physiology, Plant translocation, Temperature.

18475-68

ON A MECHANISM OF FUNGICIDAL ACTION OF SURFACE-ACTIVE AGENTS. (RUS)

S S Stroeve N P Elinov

Microbiol Espan 36(3):451-455

May 1967 448.3 M583

Candida albicans, Fungicides, Surface-active agents, Toxicology. English and russian abstract

Abstract

18476-68

NOTICE OF FILING OF PETITION REGARDING PESTICIDE CHEMICALS. KIRK, J K.

Fed Regist 33(201):15309

15 Oct 1968 L1.451

Biochemistry, Chemicals, Colorimetry, Cottonseed, Pesticide residues, Pesticides, Sorghum, Soybeans, Spinach, Sugarcane.

18477-68

STROMATOL RIND FORMATION IN THE BROWN ROT FUNGI.

H J Willetts

J Gen Microbiol 52(2):271-273

Jul 1968 448.3 J823

Electron microscopy, Fungus diseases (plants), Plant morphology, Plant physiology, Sclerotinia fructicola.

Abstract

BIBLIOGRAPHY

18478-68

NUTRITIONAL REQUIREMENTS OF A TOMATO TISSUE CULTURE: GROWTH PROMOTING FACTORS FROM PEAS.

S S Witherell

Diss Abstr Sect B 28(11):4453B

May 1968 Z5055.U49D53

Agar, Biochemistry, Extracts, Inositol, Peas, Plant nutrition, Plant physiology, Plant regulators, Tissue culture, Tomatoes, Water.

18479-68

THE STUDY OF THE EFFECT OF AMITROL ON THE RESPIRATION AND ACTIVITY OF SOME ENZYMES IN POPPY PLANTS (PAPAVER SOMNIFERUM L.).

J Zemanek J Ambrozova

Biol Plant 9(4):270-275

1967 450 B52

Amitrole, Biochemistry, Enzymes, Herbicides, Papaver, Papaver somniferum, Respiration. Czechoslovakian and Hebrew summaries

18480-68

THE EFFECT OF HORMONAL HERBICIDES ON THE RADICAL BUDS OF CIRSIUM ARVENSE SCOP. (RUS)

N M Zhirmunskaya

Bot Zhur (moscow) 53(6):841-844 REF

1968 451 R923

Cirsium arvense, Herbicides, Plant hormones, Plant protection.

18481-68

EFFECT OF 3-INDOLEACETIC ACID ON PHOSPHOLIPID MEMBRANE COMPONENTS OF AVENA COLEOPTILES.

R P Zimmerer

Diss Abstr Sect B 29(1):77B

Jul 1968 Z5055.U49D53

Biochemistry, Chromatography, Corn, Indoleacetic acid, Oats, Phospholipids, Pisum sativum, Plant translocation, Tissues.

CHEMISTRY

18482-68

GEL PERMEATION CLEANUP FOR MALATHION IN WHEAT, USING A NON-IONIC, CROSS-LINKED POLYSTYRENE POLYMER.

N L Aker S H Schanderl N C Leeling

Ass Offic Anal Chem J 51(4):888-892 REF

Jul 1968 381 AS7

Extracts, Gels, Malathion, Styrene polymers, Wheat.

18483-68

GAS CHROMATOGRAPHIC DETECTOR FOR SIMULTANEOUS SENSING OF PHOSPHORUS AND SULFUR-CONTAINING COMPOUNDS BY FLAME PHOTOMETRY.

M C Bowman M Beroza

Anal Chem 40(10):1448-1455

Aug 1968 381 J825A

Chemistry, Chromatography, Molecules, Phosphorus compounds, Photometry, Sulfur compounds.

18484-68

LOW TEMPERATURE IRRADIATION APPLIED TO NEUTRON ACTIVATION ANALYSIS OF MERCURY IN HUMAN WHOLE BLOOD.

D Brune

*Oikos (SUP.9):*12

1967 410 O14

Blood chemistry, Distillation, Ion exchange, Irradiation, Mercury, Neutron activation analysis, Temperature.

18485-68

PLANT HORMONES-V. THIN-LAYER AND GAS-LIQUID CHROMATOGRAPHY OF THE GIBBERELLINS; DIRECT IDENTIFICATION OF THE GIBBERELLINS IN A CRUDE PLANT

EXTRACT BY GAS-LIQUID CHROMATOGRAPHY.

B D Cavell J MacMillan R J Pryce A C Sheppard

Phytochemistry 6(6):867Q874

Jun 1967 450 P5622

Chromatography, Esters, Extracts, Gibberellins, Plant hormones, Scarlet runner beans.

18486-68

INFRARED STUDIES OF ETHYLENE CHLOROHYDRIN.

J T Chen J H Gould

Ass Offic Anal Chem J 51(4):878-882 REF

Jul 1968 381 AS7

Ethylene chlorohydrin, Hydroponics, Infrared spectra, Vapors.

18487-68

SEASONAL VARIATION IN THE CONCENTRATION OF CAESIUM-137 IN GRASS AND ALFALFA.

S Csupka M Petrasova J Carach

Nature 213(5082):1204-1206 REF

25 Mar 1967 472 N21

Alfalfa, Cesium isotopes, Climate, Grasses, Radioactive contamination, Radiochemistry.

18488-68

THE STATISTICAL DESCRIPTION OF A SPRAY IN TERMS OF DROP VELOCITY, SIZE, AND POSITION.

J F Groeneweg

Diss Abstr Sect B 28(11):4593B-4560B

May 1968 Z5055.U49D53

Assay, Fluorescence, Measurement, Particle size determination, Photography, Spraying, Statistical methods, Temperature, Velocity.

18489-68

ISOLATION, IDENTIFICATION, PURIFICATION, AND BIOLOGICAL PROPERTIES OF THE ANTIBIOTIC PHYTOACTIN.

A E Harvey

Diss Abstr Sect B 29(2):440B-441B

Aug 1968 Z5055.U49D53

Antibiotics, Biology, Chemistry, Phytoactin, Properties, Purification.

18490-68

HETEROCYCLICALLY SUBSTITUTED MONOHALOGENO-1,3,5-TRIAZINES. PATENT 3,407,201.

C Luehti H R Biland M Scheilenbaum M

Duennenberger

Us Patent Office Offic Gaz 855(4):1045-1046

22 Oct 1968 156.65 OF2

Bactericides, Chemistry, Fungicides, Halogen compounds, Heterocyclic compounds, Patents, Triazines.

18491-68

QUALITATIVE IDENTIFICATION OF CHLORTETRACYCLINE AND OXYTETRACYCLINE IN FEEDS.

C T Smith

Ass Offic Anal Chem J 51(4):750-751

Jul 1968 381 AS7

Antibodies, Chlortetracycline, Color, Feed, Oxytetracycline.

18492-68

CHEMISTRY AND PHYSIOLOGIC ACTION OF THE ANTIBIOTIC PHYTOACTIN.

M F Stoner

Diss Abstr Sect B 28(8):3131B-3132B

Feb 1968 Z5055.U49D53

Biological assay, Fusarium, Glomerella cingulata, Phytoactin, Seed germination.

ENGINEERING

18493-68
ENGINEERING AND BIOLOGICAL ASPECTS
OF DESIGNING AND USING A SELECTIVE
FLAME WEEDER.

W F Lalor
Diss Abstr Sect B 29(1):152B
Jul 1968 Z5055.U49D53

Equipment, Heat, Measurement, Methodology,
Research, Temperature, Weed burners, Weed con-
trol.

18494-68
SPEEDOMETER ADAPTED FOR FOG CALCU-
LATIONS.

A G Mac Bain R Suhrbier E Holub
Pest Contr 36(7):22

Jul 1968 449.8 EX8

Equipment, Fog, Insecticide application, Spraying
equipment, Tractors.

INDUSTRY

ECONOMICS

18495-68

PESTICIDES, THEIR USE AND MISUSE.

L G K Iverson

Amer Vet Med Ass J 151(12):1806-1809

15 Dec 1967 41.8 AM3

Accident prevention, Agricultural economics, In-
sect control, Pesticides.

REGULATIONS

18496-68

THE ORGANIZATION AND ACTIVITIES OF
THE BUREAU OF VETERINARY MEDICINE,
FOOD AND DRUG ADMINISTRATION.

C D Van Houweling

Amer Vet Med Ass J 151(12):1821-1827

15 Dec 1967 41.8 AM3

Agricultural legislation, Drug therapy, Food addi-
tives, Veterinary medicine.



SUBJECT INDEX

- ABDOMEN**
New techniques to bioassay the sex attractant of pink bollworms with olfactometers. 17829
- ABIES BALSAMEA**
Forestry. 18172
- ABIES GRANDIS**
Survival of the balsam woolly aphid on *Abies* logs. 18084
- ABNORMALITIES**
Experiments and considerations on the anomalies of tomatoes of the super marmande type in hot houses, connections with the use of some plant hormones. 17933
Seminal vesiculitis syndrome: Lesions in genital organs of young bulls. 18208
- ABORTION**
Mycotic abortion in ewes produced by *Aspergillus fumigatus*: pathologic changes. 18184
Artificially induced immunity to enzootic abortion in ewes. 18246
Psittacosis-lymphogranuloma venereum agent isolated during an abortion epizootic in goats. 18286
Acute infectious bovine rhinotracheitis and salmonellosis in a dairy herd. 18344
- ABSCESSES**
Corynebacterium equi infection in two foals. 18225
- ABSORPTION**
Accumulation of glycine in the fat body of the silkworm, *Bombyx mori* L. 17803
Mechanisms of inhibition and uncoupling of oxidative phosphorylation in housefly mitochondria. 17899
Permeability changes in pear fruits associated with pathogenesis by *Erwinia amylovora*. (Abstract). 17961
Mercury content in feathers of Swedish birds from the past 100 years. 18198
The toxicity and distribution of mercury. 18410
Active uptake of *Helminthosporium carbonum* toxin and its effect on CO₂ dark fixation by corn. (Abstract). 18453
- ABSORPTION (BIOLOGICAL)**
Distribution of mercury compounds in fish and birds. 18180
- ACARICIDES**
Further evaluation of acaricides for brown wheat mite control on winter wheat in Kansas, 1963-65. 18091
- ACARINA**
Comparative toxicity (Mammalia, Insecta, Acarina) of recent S,S-dimethyl S-benzyl derivatives substituted for tri- and tetrathio phosphoric acids. 17800
- ACCIDENT PREVENTION**
Insecticide residues in pest control. 18401
Residues of diazinon, coumaphos, ciodrin, methoxychlor, and rotenone in cow's milk from treatments similar to those used for ectoparasite and fly control on dairy cattle, with notes on safety of diazinon and ciodrin to calves. 18403
Pesticides, their use and misuse. 18495
- ACER RUBRUM**
The Columbian timber beetle, *Corthylus columbianus* (Coleoptera: Scolytidae). VIII. Artifacts and characteristics of the host tree. 18129
- ACER SACCHARINUM**
The Columbian timber beetle, *Corthylus columbianus* (Coleoptera: Scolytidae). VIII. Artifacts and characteristics of the host tree. 18129
- ACETALDEHYDE**
Anaerobic metabolism of *Albugo candida*-infected radish cotyledons. 17953
- ACHATINA FULICA**
Hyperglycemia induced by 5-hydroxytryptamin in *Achatina fulica* (gastropod mollusca). 18178
- ACHETA DOMESTICUS**
Vital staining of insect eggs by incorporation of trypan blue. 17878
- ACIDS**
Sub-units of acid phosphatase-I in *Drosophila melanogaster*: Reversible dissociation in vitro. 17862
Water, electrolyte, and acid-base alterations in experimental canine leptospirosis. 18244
Response of early-weaned pigs to amino acid supplementation of corn diets. 18391
- ACRIDIDAE**
Mechanism of locust jumping. 17793
- ACRIDINE ORANGE**
Studies on the replication of African horse-sickness virus in two different cell line cultures. 18304
- ACRYLAMIDE**
Identification of *Xanthomonas* species by acrylamide-gel disc electrophoresis of soluble bacterial proteins. (Abstract). 18439
- ACTINOMYCETES**
The suppression of actinomycetes by PCNB in culture media used for enumerating soil bacteria. 17980
- ACTINOMYCIN D**
Nucleoprotein synthesis during metamorphosis in *Drosophila virilis*. 17872
Actinomycin D-induced phenocopies in *Drosophila melanogaster* and their relevance to differential gene transcription. The genetic basis of actinomycin D-induced preferential killing of *Drosophila melanogaster* males. 17907
- ACTINOMYCINS**
Results concerning humoral immunity of *Pyrrocoris apterus* L. and *Galleria mellonella* F. 17842
- ACYRTHOSIPHON PISUM**
On cold resistance of the pea aphid *Acyrtosiphon pisum* Harr (Homoptera, Aphididae). 17869
Aspartate aminotransferase in the pea aphid, *Acyrtosiphon pisum* (Harris). 17876
Role of host plant in production of winged forms by a green strain of pea aphid *Acyrtosiphon pisum*. 18120
- ADENOSINE TRIPHOSPHATES**
Mechanisms of inhibition and uncoupling of oxidative phosphorylation in housefly mitochondria. 17899
- ADENOVIRUSES**
Some characteristics of three porcine adenoviruses. 18228
- ADSORPTION**
The toxicology of different organo-mercurials used as fungicides. 18418
- AEDES AEGYPTI**
The multiplication of Middelburgs and I plaque viruses in *Aedes aegypti* mosquitoes. 17735
Growth of arboviruses in monolayers from subcultured mosquito embryo cells. 17870
The effect of blood-feeding on the longevity of radiationresistant yellow-fever mosquitoes. 17885
Some aspects of isoleucine metabolism in the yellow fever mosquito, *Aedes aegypti* (L.). 17891
- AEDES SOLLICITANS**
Cattle-mosquito study begins in south Texas. 18352
- AEDES TAENIORHYNCHUS**
Endogenous diurnal rhythm of pupation in a mosquito population. 17868
- AERIAL SPRAYING**
Helicopter application of phytoactin to whitebark pine. (Abstract). 17958
- AFLATOXICOSIS**
Effect of ration modifications on aflatoxicosis in the rat. 18382
- AFLATOXIN**
Factors influencing aflatoxin accumulation in peanut kernels and the associated mycoflora. 18043
Effect of aflatoxin on serum protein fractions of day-old ducklings. 18191
Fungi in stored products. 18377
Isolation of a new toxin from cultures of *Aspergillus flavus*. 18416
Comparison of the effects of gibberellic acid and aflatoxin in germinating seeds. 18449
- AFRICA**
On the *Sphodromantis* of the species *viridis* from northwest Africa. 17849
- AFRICAN HORSE SICKNESS VIRUS**
Studies on the replication of African horse-sickness virus in two different cell line cultures. 18304
- AGALACTIA**
Microflora associated with agalactia syndrome of sows. 18207
- AGAR**
Effects of mold inhibitors in larval diet on the biology of the cabbage looper. 17847
Mycelial growth and production of oospores as affected by beta-sitosterol, and the germination of oospores of *Phytophthora megasperma* var. *sojae*. (Abstract). 17979
Survival and growth of *Fomes annosus* at high concentrations of borax. (Abstract). 18450
Nutritional requirements of a tomato tissue culture: Growth promoting factors from peas. 18478
- AGGLUTINATION**
Antibody response to immunization in experimental Salmonellosis. 18269
- AGGLUTINATION TEST**
Utilization of the card test in brucellosis eradication. 18299

SUBJECT INDEX

AGING

AGING

Pathological changes of blood depending on sex and age of rabbits experimentally infected with a sheep strain of *Strongyloides papillosus*.

18358

AGRICULTURAL CHEMISTRY

Notice of filing of petition regarding pesticide chemicals.

18388

AGRICULTURAL ECONOMICS

Pesticides in the coming struggle for food.

17936

Pesticides, their use and misuse.

18495

AGRICULTURAL LEGISLATION

The organization and activities of the Bureau of Veterinary Medicine, Food and Drug Administration.

18496

AGRICULTURAL PRODUCTS

Fungi in stored products.

18377

AGRICULTURAL RESEARCH

The effect of disinfection on cereal seeds determined in laboratory experiments and emergence tests in soil.

17924

Susceptibility of weakened cottonwood stems to fungi associated with blackstem.

18055

Placental pathology of experimentally-induced enzootic abortion in ewes.

18300

AGRICULTURE

Distribution of mercury compounds in fish and birds.

18180

Swedish studies of game that had been found dead as well as specimens that had been shot.

18411

AGROBACTERIUM TUMEFACIENS

Auxin and crown gall tumor initiation. (Abstract).

18023

AGROMYZIDAE

Cereal leaf miner in the South-east Region.

18092

AGROSTIS PALUSTRIS

The barley root-knot nematode in Illinois.

18135

AGROTIS SEGETUM

Correction coefficients for prognosing the development of insects by sums of effective temperatures (*Agrotis segetum* Schiff taking of example).

17810

AIR FLOW

Spread of the boll weevil by drainage water and air currents.

17824

AIR POLLUTION

Pesticides and pollution. SB959.0U4.

17863

Stomatal movements; a yearly rhythm.

18473

AIR SACS

Mycoplasma meleagridis ('N' strain mycoplasma - PPLO): Relationship of air sac lesions and isolations in day old turkeys (*Meleagris Gallopavo*).

18211

AIRPORTS

Interceptions of plant diseases through the port of Bombay.

18014

ALBUGO

The development of *Albugo candida*-induced 'green islands' on *Brassica juncea* cotyledons.

17992

ALBUGO CANDIDA

Anaerobic metabolism of *Albugo candida*-infected radish cotyledons.

17953

ALCOHOL

Preliminary observations on the effect of alcohol and oil films on the oviposition of *Culex pipiens quinquefasciatus* (Say).

17844

ALDEHYDE OXIDASE

Polygenic control of aldehyde oxidase and xanthine dehydrogenase in *Drosophila*.

17807

ALDRIN

Effects on populations of corn rootworms of aldrin residues in soil four years after application.

18087

Isolation and purification of metabolites found in the urine of male rats fed aldrin and dieldrin.

18379

ALFALFA

Winter oviposition by the alfalfa weevil in Virginia.

17900

Potential of the *Rhizobium-Fusarium* interactions on the incidence of alfalfa root rot.

18006

Stimulation of *Sclerotium rolfsii* and its antagonists by volatile components of alfalfa hay. (Abstract).

18021

Lack of cytoplasmic inheritance of alfalfa resistance to the spotted alfalfa aphid.

18099

Attempted cultivation of nematode cells. (Abstract).

18133

Chemical control of the stem nematode *Ditylenchus dipsaci*.

18137

The influence of plant-growth substances and their inhibitors on the host-parasite relationships of *Aphelenchoides ritzemabosi* in culture.

18155

Notice of filing of petition regarding pesticide chemicals.

18388

Pyrrrolizidine alkaloid poisoning in calves.

18412

Effect of calcium availability on alfalfa grown in calcareous high sodium soils.

18464

Seasonal variation in the concentration of caesium-137 in grass and alfalfa.

18487

ALGAE

Bionomics of the mosquito *Anopheles franciscanus* McCracken in California.

17783

Detergents.

18387

Toxic blue-green algae in Saskatchewan.

18414

ALKALINE PHOSPHATASE

Relationships between zinc nutrition and alkaline phosphatase activity in the chick.

18220

ALKALOIDS

Pyrrrolizidine alkaloid poisoning in calves.

18412

The interrelationships of *Rhizoctonia solani* and *Helminthosporium vagans*, nitrogen, and variety on alkaloids in *Festuca arundinacea*. (Abstract).

18443

ALKALOSIS

Oxalate metabolism in sheep and its effect on the anion-cation balance.

18188

ALLERGIES

Potato spindle tuber virus: in situ sensitivity of the infectious agent to ribonuclease. (Abstract).

17974

Differentiation of races of *Pseudomonas solanacearum* by a hypersensitive reaction of tobacco leaves. (Abstract).

18025

ALLIUM

The effect of species of *Allium* on soil bacteria in relation to germination of sclerotia of *Sclerotium cepivorum* Berk.

18434

ALMONDS

Dispersal patterns of *Monilinia laxa* spores in peach, prune, apricot, and almond trees during early spring. (Abstract).

18435

ALTERNARIA BRASSICAE

A comparative nutritional study of *Alternaria raphani*, *A. brassicae*, and *A. brassicola* with special reference to *A. raphani*.

18069

ALTERNARIA BRASSICICOLA

A comparative nutritional study of *Alternaria raphani*, *A. brassicae*, and *A. brassicola* with special reference to *A. raphani*.

18069

ALTERNARIA RAPHANI

A comparative nutritional study of *Alternaria raphani*, *A. brassicae*, and *A. brassicola* with special reference to *A. raphani*.

18069

ALTERNARIA TENUIS

Alternaria tenuis on *Antirrhinum*.

18033

ALTERNARIA TOMATO

Irreversible inhibition of spore formation in *Alternaria tomato* by dedifferentiation of conidiophores. (Abstract).

17939

ALTITUDE

A preliminary report of the mosquitoes in the Gilgit Agency area.

17772

ALUMINUM

Studies on hydrogen phosphide against the red flour beetle in a column of paddy.

18113

Manganese toxicity in celery.

18413

ALUMINUM FOIL

Aluminum foil and white polyethylene mulches to repel aphids and control watermelon mosaic.

18083

AMBROSIA ARTEMISIFOLIA

The growth, development and control of common ragweed.

18160

Light quality effects on growth and development ragweed.

18161

Herbaceous annual and perennial weeds.

18174

AMERICAN FOULBROOD

Ethylene oxide for the control of American foulbrood in honey bees.

17881

AMINES

Spermidine, the major polyamine component of turnip yellow mosaic virus. (Abstract).

17946

Hyperglycaemia induced by 5-hydroxytryptamin in *Achatina fulica* (gastropod mollusca).

18178

AMINO ACIDS

Content and synthesis of gamma aminobutyric acid in the larval brain of *Drosophila melanogaster*.

17799

Accumulation of glycine in the fat body of the silkworm, *Bombyx mori* L.

17803

Physiological genetics of melanotic tumors in *Drosophila melanogaster*. V. Amino acid metabolism and tumor formation in the *tu bw*; *st su-tu* strain.

17902

Relationship between free amino acids and symptom expression in corn infected with maize dwarf mosaic virus or sugarcane mosaic virus. (Abstract).

17982

- The role of cotton and bean seed exudate in pre-emergence infection by *Rhizoctonia solani*. 17994
- The effect of amino acid antimetabolites on four nematode species and their host plants. 18146
- Myoglobin in control and dystrophic chickens. 18250
- Response of early-weaned pigs to amino acid supplementation of corn diets. 18391
- Amino acid-(phenylazo)-phenyl derivatives. xX-III. investigation of the phytotoxic effect of the antipodes of alanine and phenylalanine-4-(phenylazo)-phenylamides against various plant species. 18472
- AMINOTRANSFERASES**
- Aspartate aminotransferase in the pea aphid, *Acyrtosiphon pisum* (Harris). 17876
- AMITROLE**
- Extermination of *Eichhornia azurea* Kunth, *Agave de cordao*, on the Ribeira river by means of herbicide applications. 18166
- Metabolism of amitrole (3-amino-1,2,4-triazole) in relation to the differential susceptibility of *Cirsium arvense* (L.) Scop. ecotypes. 18474
- The study of the effect of amitrol on the respiration and activity of some enzymes in poppy plants (*Papaver somniferum* L.). 18479
- AMPROLIUM**
- Successful treatment of coccidiosis in lambs. 18313
- AMSINCKIA INTERMEDIA**
- Pyrrolizidine alkaloid poisoning in calves. 18412
- ANAEROBIC BACTERIA**
- Clinical aspects of toxic infections by anaerobic germ spores in ruminants. 18229
- Anaerobic processes. Microbiology and mechanism. 18405
- Effect of anaerobiosis on germination and viability of *Rhizopus stolonifer* sporangiospores. (Abstract). 18431
- ANAPLASMOSIS**
- Anaplasma marginale*-infectivity in splenectomized and radiated rabbits. 18210
- ANARETE PRITCHARDI**
- Ecology of insect swarms. V. Movement of individual midges, *Anarete pritchardi*, within a swarm. 17801
- ANATOMY**
- Anatomic effects of cadang-cadang disease on coconuts. 17940
- Ultrastructure of *Zea mays* leaf cells infected with Johnson grass strain of sugarcane mosaic virus. (Abstract). 17986
- Ultrastructural changes in apple leaf cells induced by virulent and avirulent strains of *Erwinia amylovora*. (Abstract). 17989
- Ultrastructure of host and parasite in compatible and incompatible interactions of *Zea mays* L. with *Puccinia sorghi* Schw. 18074
- Electron microscope studies of some cephalic structures of *Xiphinema americanum*. 18142
- Effects of a low manganese diet on certain ovine characteristics. 18274
- ANCYLOSTOMA CANINUM**
- Observations on the effects of pyrinium pamoate on *Strongyloides stercoralis*. 18359
- ANGULAR LEAFSPOT (COTTON)**
- Race buildup of *Xanthomonas malvacearum* on cotton in southeast Missouri. 17928
- ANIMAL ABNORMALITIES**
- Histidine decarboxylase in strains of *Escherichia coli* isolated from normal swine and swine with edema disease and enteric disorders. 18307
- ANIMAL ANATOMY**
- Growth and development of the bovine as related to certain endocrine factors. 18234
- Histopathologic changes in male swine with experimental Brucellosis. 18237
- ANIMAL BREEDING**
- Mycoplasma meleagridis* ('N' strain mycoplasma - PPLO): Relationship of air sac lesions and isolations in day old turkeys (*Meleagris Gallopavo*). 18211
- ANIMAL DISEASES**
- Mycotic abortion in ewes produced by *Aspergillus fumigatus*; pathologic changes. 18184
- Cystic ovarian disease in dairy cattle: With special reference to its treatment using a combination of Chorionic gonadotrophin and progesterone. 18200
- Experimental treatment of subclinical porcine case of *Toxoplasma* with sulfamonomethoxine and pyrimethamine and its influence upon hemagglutinating antibody. 18202
- Does the agent of scrapie replicate without nucleic acid. 18205
- Experimental colibacillosis and the development of carries in laying hens. 18206
- Microflora associated with agalactia syndrome of sows. 18207
- Anaplasma marginale*-infectivity in splenectomized and radiated rabbits. 18210
- Properties of Aujeszky's disease virus strains isolated from swine pneumonia cases. 18215
- Hemophilia-like disease of swine: Cytogenetic studies. 18223
- Avian adeno-like viruses- Characterization and comparison of seven isolates. 18224
- Clinical aspects of toxic infections by anaerobic germ spores in ruminants. 18229
- Growth and development of the bovine as related to certain endocrine factors. 18234
- Histopathologic changes in male swine with experimental Brucellosis. 18237
- Immunochemical and biochemical interrelationship of *Streptococcus agalactiae* to the bovine. 18238
- Effects of selenium and vitamin E on nutritional muscular dystrophy in lambs. 18242
- Water, electrolyte, and acid-base alterations in experimental canine leptospirosis. 18244
- Newcastle disease: A legal interpretation. 18245
- Artificially induced immunity to enzootic abortion in ewes. 18246
- Myoglobin in control and dystrophic chickens. 18250
- Clostridium perfringens* type A infection of ligated intestinal loops in lambs. 18255
- Lipids of Venezuelan equine encephalomyelitis virus and their relationship to the lipids of the host. 18256
- Pathology a-d immunofluorescence studies of bovine mycoplasma mastitis. 18267
- Antibody response to immunization in experimental Salmonellosis. 18269
- Liver granulomas of turkeys causative agents and mechanism of infection. 18294
- Longevity of an experimental infection with *Dirofilaria immitis* in a dog. 18297
- Transmission of salmon poisoning disease to dogs by *Nanophyetus salmicola* eggs. 18301
- Rabies control in public health administration. 18303
- Experimental transmission of two canine neoplasms: Lymphosarcoma and mast cell leukemia. 18310
- Effect of bursectomy on the rous virus tumour induction in chickens. 18311
- Immunization of foxes with inactivated virus rabies vaccine. 18315
- Experimental production of rheumatoid arthritis of swine: Physiopathologic changes of tissues. 18319
- Epizootologic observations of canine filariasis in Georgia. 18330
- The penetration patterns of *Salmonella typhimurium* through the outer structures of chicken eggs. 18341
- Acute infectious bovine rhinotracheitis and salmonellosis in a dairy herd. 18344
- Dirofilaria immitis* parasitic in the spinal cavity of a dog. 18362
- A method for evaluation of vaccines containing *Pasteurella multocida*. 18380
- On the development of *Cysticercus fasciolaris* in albino rat liver and its reaction on the host tissue. 18381
- ANIMAL ECOLOGY**
- The connection between sunspot cycles and mass mortality among vertebrates and non-vertebrates due to parasitic activity. 18327
- Epizootologic observations of canine filariasis in Georgia. 18330
- ANIMAL GENETICS**
- Hemophilia-like disease of swine: Cytogenetic studies. 18223
- ANIMAL HISTOLOGY**
- Histopathologic changes in male swine with experimental Brucellosis. 18237
- Copper and ascorbic acid in guinea pig tissues as effected by dietary intake. 18290
- On the development of *Cysticercus fasciolaris* in albino rat liver and its reaction on the host tissue. 18381
- ANIMAL HUSBANDRY**
- Rearing lambs free of gastrointestinal nematodes. 18368
- ANIMAL METABOLISM**
- Influence of nitrite and hydroxylamine on performance and vitamin A and carotene metabolism of ruminants. 18183

SUBJECT INDEX

ANIMAL MORPHOLOGY

- Influence of dietary vitamin A on cholesterol metabolism of chickens. 18185
- Oxalate metabolism in sheep and its effect on the anion-cation balance. 18188

ANIMAL MORPHOLOGY

- Mycotic abortion in ewes produced by *Aspergillus fumigatus*: pathologic changes. 18184

ANIMAL NUTRITION

- Nematodiasis in Louisiana dairy cattle. Impact of host nutrition upon experimental ostertagiasis in the bovine. 18212
- Relationships between zinc nutrition and alkaline phosphatase activity in the chick. 18220
- Some nutritional aspects of dietary magnesium in ruminants and poultry. 18227
- Effects of selenium and vitamin E on nutritional muscular dystrophy in lambs. 18242
- Effects of a low manganese diet on certain ovine characteristics. 18274
- Increased incidence of avian leukosis in response to excess vitamin A. 18280
- The utilization of vitamin A and carotene by ruminants. 1. Vitamin A potency of carotenes in corn silage fed to lambs. 2. The effect of time and route of administration of vitamin A on liver vitamin A storage by steers. 3. The effect of route of administration of vitamin A on blood serum and liver vitamin A concentrations in steers at subsequent time intervals. 18281
- Copper and ascorbic acid in guinea pig tissues as effected by dietary intake. 18290

ANIMAL PHYSIOLOGY

- The effect of intramammary infection during the dry period on the milk production of the affected quarter at the start of the succeeding lactation. 18194
- Factors affecting the storage, excretion, and placental transfer of dieldrin in dairy cattle. 18218
- Some physiological responses of ruminants to 2,2-dichlorovinyl dimethyl phosphate. 18219
- Actions of vitamin D3 and sex hormones on calcium metabolism of bone in birds, particularly in hens. 18226
- Effects of selenium and vitamin E on nutritional muscular dystrophy in lambs. 18242
- Oxalate metabolism in sheep II. Effect of low level Halogeton glomeratus intake on electrolyte metabolism. 18262
- Food intake and growth of burro foals after 250 roentgens of cobalt-60 whole-body gamma irradiation. 18271
- Effects of a low manganese diet on certain ovine characteristics. 18274
- Copper and ascorbic acid in guinea pig tissues as effected by dietary intake. 18290
- Alterations in the response and functions of the chicken pancreas induced by feeding unheated and autoclaved soybean meal. 18314
- The effect of trauma on production of herpes interferon in guinea pigs. 18331
- The effect of diet on the utilization of stable and radioactive copper in ruminants. 18334

- Experimental bluetongue disease in white-tailed deer. 18336
- Effect of ration modifications on aflatoxicosis in the rat. 18382
- On the principal way of attack of rotenone in fish. 18415

ANIMAL VECTORS

- Enzootic rabies in rodents in Thailand. 18320
- The epizootiological importance of foot-and-mouth disease carriers. I. Experimentally produced foot-and-mouth disease carriers in susceptible and immune cattle. 18326

ANIMALS

- Analysis of the development of oviducts and the developmental relations between oviducts and ovaries in *Drosophila virilis*. Part one: Development of oviducts under normal and experimental conditions. Part two: Analysis of alterations occurring in oviducts during imaginal life. 17782
- Further evaluation of animal systemic insecticides, 1967. 18347
- Insecticide residues in pest control. 18401

ANNUAL PLANTS

- Stomatal movements; a yearly rhythm. 18473

ANOBIIDAE

- Notes on deathwatch beetles (Coleoptera). 17821

ANOPHELES FRANCISCANUS

- Bionomics of the mosquito *Anopheles franciscanus* McCracken in California. 17783

ANOPHELES QUADRIMACULATUS

- Longevity of an experimental infection with *Dirofilaria immitis* in a dog. 18297

ANOPLURA

- Note on the determination of carbaryl residues in hen skin. 18406

ANTENNAE

- Sensillae on the antennae of blood-sucking biting midges (Diptera, Ceratopogonidae). 17880

ANTHELMINTICS

- Changes in the efficacy of three anthelmintics during the maturation of a nematode (*Trichinella spiralis*). 18357
- Observations on the effects of pyrinium pamoate on *Strongyloides stercoralis*. 18359
- Anthelmintic activity of some carbamate derivatives. 18374

ANTHERAEA EUCALYPTI

- Parthenogenesis in gum emperor moth *Antheraea eucalypti* (Scott). 17840

ANTHERAEA POLYPHEMUS

- Effects of juvenile hormone on protein synthesis during the metamorphosis of the polyphemus silkworm. 17788

ANTHOCORIS MELANOCERUS

- Anthocoris melanocerus* as a predator of the green peach aphid on sugar beets and broccoli. 18121

ANTHONOMUS GRANDIS

- Field studies of sex attraction in the boll weevil. 17790
- Influence of the spectral composition of certain bands of visible and near visible radiation on diapause in the boll weevil. 17833

- A red dye to evaluate bait formulations and to mass mark field populations of boll weevils. 17856

- Constituents of the cotton bud. XIII. Further studies on a nonpolar feeding stimulant for the boll weevil. 18124

ANTHONOMUS GRANDIS THURBERIAE

- Spread of the boll weevil by drainage water and air currents. 17824

ANTHRACNOSE (CITRUS)

- Chemical control of scab and anthracnose on susceptible varieties of Citrus in Florida. (Abstract). 17981

ANTIBIOTICS

- Helicopter application of phytoactin to whitebark pine. (Abstract). 17958
- Serological diagnostic method without isolation of *Erwinia amylovora* culture from a diseased plant. 18002
- Psittacosis-lymphogranuloma venereum agent isolated during an abortion epizootic in goats. 18286
- Detection of antibiotic-fast staphylococci in otitis externa in dogs. 18346
- Effect of ration modifications on aflatoxicosis in the rat. 18382
- The effect of species of *Allium* on soil bacteria in relation to germination of sclerotia of *Sclerotium cepivorum* Berk. 18434
- Isolation, identification, purification, and biological properties of the antibiotic phytoactin. 18489

ANTIBODIES

- Experimental treatment of subclinical porcine case of *Toxoplasma* with sulfamonomethoxine and pyrimethamine and its influence upon hemagglutinating antibody. 18202
- Some characteristics of three porcine adenoviruses. 18228
- Hog cholera: Safety and protection studies with photodynamically inactivated hog cholera virus. 18232
- Newcastle disease: A legal interpretation. 18245
- California-encephalitis-group viruses in Florida rabbits: Report of experimental and sentinel studies. 18265
- Serological tests for the detection of antibodies to *Mycoplasma gallisepticum* in chickens and turkeys. 18266
- Pathology and immunofluorescence studies of bovine mycoplasma mastitis. 18267
- Antibody response to immunization in experimental Salmonellosis. 18269
- Foot-and-mouth disease in swine. I. The immune response of swine to chemically-treated and non-treated foot-and-mouth disease virus. 18288
- Foot-and-mouth disease in swine. II. Some physicochemical characteristics of antibodies produced by chemically-treated and non-treated foot-and-mouth disease virus. 18289
- Response of lymphocyte-depleted calves to fluid tetanus toxoid. 18293
- A comparison of methods of measuring the persistence of neutralizing and haemagglutinin-inhibiting antibodies to louping ill virus in experimentally infected sheep. 18302

SUBJECT INDEX

ASCORBIC ACID

- Effect of bursectomy on the rous virus tumour induction in chickens. **18311**
- Immunization of foxes with inactivated virus rabies vaccine. **18315**
- Serologic survey for toxoplasma antibodies in a colony of research dogs and cats in California. **18323**
- Relationship between infecting dose, muscle parasitism, and antibody response in experimental trichinosis in rabbits. **18329**
- Experimental bluetongue disease in white-tailed deer. **18336**
- Some studies on the pathogenesis and epizootiology of epizootic hemorrhagic disease of deer. **18340**
- Stained monolayer test: a color test in disposable plastic trays for titrating transmissible gastroenteritis virus and neutralizing antibodies. **18343**
- A method for evaluation of vaccines containing pasteurized multocida. **18380**
- Qualitative identification of chlortetracycline and oxytetracycline in feeds. **18491**
- ANTIGENS**
- Studies on selection in natural and experimental populations of *Drosophila pseudoobscura*. **17781**
- California-encephalitis-group viruses in Florida rabbits: Report of experimental and sentinel studies. **18265**
- Serologic response of swine to *Escherichia coli* antigens. **18273**
- Biochemical and serologic characteristics of *Vibrio* isolants from cattle. **18337**
- Some studies on the pathogenesis and epizootiology of epizootic hemorrhagic disease of deer. **18340**
- Hydatid latex agglutination with scolex and crude polysaccharide antigens. **18360**
- A method for evaluation of vaccines containing pasteurized multocida. **18380**
- ANTIMETABOLITES**
- The effect of amino acid antimetabolites on four nematode species and their host plants. **18146**
- ANTIRRHINUM**
- Pathogenic and cultural variation in *Phytophthora nicotianae* var *parasitica* from greenhouse plants. **18064**
- ANTIRRHINUM MAJUS**
- Alternaria tenuis* on *Antirrhinum*. **18033**
- ANTISEPTICS**
- Distribution of mercury compounds in fish and birds. **18180**
- Studies on the laboratory soiling of milking equipment. **18409**
- Swedish restrictions concerning the use of mercury compounds for seed disinfection. **18441**
- APHANOMYCES EUTEICHES**
- Number of zoospores of *Aphanomyces euteiches* required for infection on peas. (Abstract). **17951**
- Influence of nitrogen form on the incidence and severity of *Aphanomyces* root rot of peas. (Abstract). **17966**
- APHELENCHOIDES RITZEMA-BOSI**
- The influence of plant-growth substances and their inhibitors on the host-parasite relationships of *Aphelenchoides ritzemabosi* in culture. **18155**
- APHELENCHUS AVENAE**
- Interactions of *Aphelenchus avenae* and some nematode-trapping fungi in dual culture. **18134**
- APHIDIDAE**
- Alate aphid species captured in yellow pans. **17806**
- On cold resistance of the pea aphid *Acyrtosiphon pisum* Harr (Homoptera, Aphididae). **17869**
- Aluminum foil and white polyethylene mulches to repel aphids and control watermelon mosaic. **18083**
- Aphid vectors of barley yellow dwarf virus in blacklight traps in eastern United States. **18089**
- The use of menazon seed dressing to decrease spread of virus yellows in sugar-beet root crops. **18098**
- Control of mustard aphid (*Lipaphis erysimi* Kalt.) by systemic insecticides. **18115**
- Role of host plant in production of winged forms by a green strain of pea aphid *Acyrtosiphon pisum*. **18120**
- APHIS CRACCIVORA**
- A new mosaic disease of brinjal (*Solanum melongena* L.). **18116**
- APHIS GOSSYPHII**
- The presence of tristeza virus in certain species of citrus in Cyprus. **18042**
- A new mosaic disease of brinjal (*Solanum melongena* L.). **18116**
- APIS MELLIFERA**
- The foraging behavior of honeybees (*Apis mellifera*) and bumblebees (*Bombus* Spp.) on blackcurrant (*Ribes nigrum*), raspberry (*Rubus idaeus*) and strawberry (*Fragaria x ananassa*) flowers. **17732**
- Mechanical and electrical activity in the indirect flight muscles of the honey bee. **17820**
- Ethylene oxide for the control of American foul-brood in honey bees. **17881**
- APPLES**
- The role of IAA in host reaction to different isolates of *Phytophthora cactorum*. (Abstract). **17955**
- Pectin methyl-trans-eliminase as the maceration factor of *Sclerotinia fructigena* and its significance in brown rot of apple. **17965**
- Ultrastructural changes in apple leaf cells induced by virulent and avirulent strains of *Erwinia amylovora*. (Abstract). **17989**
- Studies of the resistance of local apple varieties to scab (*Venturia inaequalis* (Cke.) Wint.) under climatic conditions of Central Anatolia. **18073**
- Attempts at combatting oystershell scale, *Lepidosaphes ulmi* (L.), on apple trees in orchards of Quebec. **18109**
- The host-parasite relations and ecology of *Trichodorus viruliferus* on apple roots, as observed from an underground laboratory. **18145**
- APRICOTS**
- Dispersal patterns of *Monilinia laxa* spores in peach, prune, apricot, and almond trees during early spring. (Abstract). **18435**
- AQUATIC ANIMALS**
- Effects on microfauna - freshwater. **18394**
- AQUATIC BIRDS**
- Toxic blue-green algae in Saskatchewan. **18414**
- AQUATIC WEEDS**
- Aquatic weeds. **18170**
- ARBOVIRUSES**
- Growth of arboviruses in monolayers from sub-cultured mosquito embryo cells. **17870**
- Studies of the epidemiology of arthropod-borne virus infections at Mitchell River Mission, Cape York Peninsula, north Queensland. II. Arbovirus infections of mosquitoes, man, and domestic fowls, 1963-1966. **17910**
- Studies of the epidemiology of arthropod-borne virus infections at Mitchell River mission, Cape York Peninsula, north Queensland. I. Mosquito collections, 1963-1966. **17914**
- ARCEUTHOBium PUSILLUM**
- Eastern dwarf mistletoe on jack pine in Manitoba. **17926**
- ARCTIIDAE**
- Meteorological factors affecting the activity of night flying Macro-Lepidoptera. **17832**
- ARGININE**
- Hog cholera: Replication of hog cholera virus in tissue culture with cytopathic effect. **18231**
- ARGYROTAENIA VELUTINANA**
- Medium and techniques for mass rearing the red-banded leaf roller. **17843**
- ARTHRITIS**
- Corynebacterium equi* infection in two foals. **18225**
- Mycoplasmas: their role in bovine disease. **18264**
- Experimental production of rheumatoid arthritis of swine: Physiopathologic changes of tissues. **18319**
- ARTHROBACTER**
- Degradation of diazinon by synergistic microbial action. **18384**
- ARTHROBOTRYX CONOIDES**
- Use of fluorescent brightener as aid to studies of fungistasis and nematophagous fungi in soil. **18440**
- ARTHROPODA**
- Defense mechanisms of arthropods. XXI. Formic acid and n-nonyl acetate in the defensive spray of two species of Hymenoptera. **17816**
- ARTIFICIAL INSEMINATION**
- Patch canker of *Hevea brasiliensis* caused by *Phytophthora palmivora*. **17967**
- ARYLSULFATASE**
- An arylsulfatase in the wood rotting basidiomycete, *Fomes geotrupis*. **18035**
- ASCARIASIS**
- Helminths as vehicles and synergists of microbial infections. **18376**
- ASCARIS LUMBRICOIDES**
- Helminthic infestations of piglets with reference to lesions encountered. **18371**
- ASCAROPS STRONGYLINA**
- Helminthic infestations of piglets with reference to lesions encountered. **18371**
- ASCORBIC ACID**
- Copper and ascorbic acid in guinea pig tissues as effected by dietary intake. **18290**

SUBJECT INDEX

ASCOSPORES

ASCOSPORES

Ascospore production, discharge and infection by *Glomerella cingulata* causing coffee berry disease. 17999

ASPERGILLUS

Fungi in stored products. 18377

ASPERGILLUS FLAVUS

Effect of soil fungicides on development of fungi in soil and on kernels of groundnut. 18003

Factors influencing aflatoxin accumulation in peanut kernels and the associated mycoflora. 18043

Occurrence of fiber containing fluorescent spots associated with *Aspergillus flavus* boll rot in the U. S. cotton crop of 1967. 18108

Isolation of a new toxin from cultures of *Aspergillus flavus*. 18416

Extent of *Aspergillus flavus* and *Fusarium oxysporum* germination in soil and in the rhizosphere of peanut. (Abstract). 18445

ASPERGILLUS FUMIGATUS

Mycotic abortion in ewes produced by *Aspergillus fumigatus*: pathologic changes. 18184

ASSAY

Analysis of the development of oviducts and the developmental relations between oviducts and ovaries in *Drosophila virilis*. Part one: Development of oviducts under normal and experimental conditions. Part two: Analysis of alterations occurring in oviducts during imaginal life. 17782

Residues of diazinon in carrots after treatment against cyclodien-resistant carrot rust fly. 18093

Mercury content in feathers of Swedish birds from the past 100 years. 18198

A comparative study of cell wall glycopeptide structure of some bovine vibrios. 18247

Clostridium perfringens type A infection of ligated intestinal loops in lambs. 18255

Antibody response to immunization in experimental Salmonellosis. 18269

Analytical problems: Mercury in the general environment. 18408

Auxin effects on the activity of pectin-transeliminase in vitro. 18430

The statistical description of a spray in terms of drop velocity, size, and position. 18488

ASSES

Food intake and growth of burro foals after 250 roentgens of cobalt-60 whole-body gamma irradiation. 18271

ATPASE

Permeability and excitation of insect muscle. 17896

ATRAZINE

Resistance breakdown in maize to maize dwarf mosaic virus after treatment with atrazine. (Abstract). 18027

ATTA

The leaf cutting ant, *Atta capiguara*, curse of the pastures. 17780

ATTA TEXANA

Reinfestation of forest sites by the Texas leaf-cutting ant. 18107

ATTRACTANTS

New techniques to bioassay the sex attractant of pink bollworms with olfactometers. 17829

Costelytra zealandica (White) sex attraction. 17845

Interception of apple maggot adults on colored traps in an orchard. 17860

A bioassay technique for screening feeding stimulants for larvae of tobacco budworm. 18096

AUTOCLAVES

Notes on microanalytical techniques in the analysis of foods for extraneous materials. 17792

AUTOPSIES

Salmonella typhimurium infection in Minnesota swine. 18209

Atypical Globidiosis in a lamb. 18213

An outbreak of Ornithosis in fowls. 18318

Experimental infection of gnotobiotic *Tenebrio molitor* and white rats with *Hymenolepis diminuta* (Cestoda: Cyclophyllidae). 18363

Lesions caused by the hepatic trematode, *Metorchis conjunctus*, Cobbold, 1860; A comparative study in Carnivora. 18369

On the *Metacercaria* of *Prosthogonimus putchkowskii* in *Sympetrum decoloratum* (Odonata: insecta) with observations on its development in chicks. 18370

Helminthic infestations of piglets with reference to lesions encountered. 18371

AUTORADIOGRAPHY

Ordered chromosomal DNA synthesis in *Drosophila melanogaster*. 17835

Distribution of mercury compounds in fish and birds. 18180

The toxicity and distribution of mercury. 18410

Influence of micro-organisms on the distribution in roots of phosphate labelled with phosphorus-32. 18424

Wound-induced gibberellins. 18467

AVIAN LEUKOSIS COMPLEX

Increased incidence of avian leukosis in response to excess vitamin A. 18280

AVIAN MYELOBLASTOSIS VIRUS

Effects of genetic cellular resistance on cell transformation and virus replication in chicken hematopoietic cell cultures infected with avian myeloblastosis virus (BAI-0A). 18295

BABESIA BIGEMINA

The infection of *Boophilus microplus* with *Babesia bigemina*. 17795

BABY PIGS

Salmonella dublin meningitis in piglets. 18287

Helminthic infestations of piglets with reference to lesions encountered. 18371

BACILLUS ANTHRACIS

Introduction to *Bacillus thuringiensis* and its uses. 18103

BACILLUS CEREUS

Introduction to *Bacillus thuringiensis* and its uses. 18103

BACILLUS LARVAE

Ethylene oxide for the control of American foul-brood in honey bees. 17881

BACILLUS THURINGIENSIS

Enzymatic hydrolysis of the encysted parasporal of *Bacillus thuringiensis* by *Bombyx mori* L. proteases. 17852

Introduction to *Bacillus thuringiensis* and its uses. 18103

BACTERIA

Results concerning humoral immunity of *Pyrrhocoris apterus* L. and *Galleria mellonella* F. 17842

Ethylene oxide for the control of American foul-brood in honey bees. 17881

Effect of *Xanthomonas vesicatoria* on loss of electrolytes from leaves of *Capsicum annum*. 17970

Bacteriological studies of poultry litter fed to livestock. 18203

Antibody response to immunization in experimental Salmonellosis. 18269

Liver granulomas of turkeys caustive agents and mechanism of infection. 18294

The occurrence of bacteria in chronic purulent eye discharge. 18335

Microbiology. Gastrointestinal outbreaks. 18392

Agricultural (livestock) wastes. 18404

Studies on the laboratory soiling of milking equipment. 18409

Identification of *Xanthomonas* species by acrylamide-gel disc electrophoresis of soluble bacterial proteins. (Abstract). 18439

Disc electrophoresis of sonic extracts of five phytopathogenic bacteria. (Abstract). 18444

BACTERIAL CANKER (TOMATOES)

Bacterial canker of tomato; inoculum level needed for infection. 18071

BACTERIAL DISEASES (PLANTS)

Permeability changes in pear fruits associated with pathogenesis by *Erwinia amylovora*. (Abstract). 17961

Effectiveness of specific genes and gene combinations in conferring resistance to races of *Xanthomonas malvacearum* in Upland cotton. (Abstract). 17978

Ultrastructural changes in apple leaf cells induced by virulent and avirulent strains of *Erwinia amylovora*. (Abstract). 17989

Auxin and crown gall tumor initiation. (Abstract). 18023

Differentiation of races of *Pseudomonas solanacearum* by a hypersensitive reaction of tobacco leaves. (Abstract). 18025

Induced resistance to bacterial wilt in susceptible tobacco cuttings pretreated with avirulent mutants of *Pseudomonas*. (Abstract). 18029

Annals of the Phytopathological Society of Japan. 18044

The effect of species of *Allium* on soil bacteria in relation to germination of sclerotia of *Sclerotium cepivorum* Berk. 18434

BACTERICIDES

Heterocyclically substituted monohalogeno-1,3,5-triazines. Patent 3,407,201. 18490

BAITS

Subterranean termite studies in southern Ontario. 17747

New techniques to bioassay the sex attractant of pink bollworms with olfactometers. 17829

A red dye to evaluate bait formulations and to mass mark field populations of boll weevils. 17856

Interception of apple maggot adults on colored traps in an orchard. 17860

Influence of population level and trap spacing on capture of tobacco horn-worm moths in blacklight traps with virgin females. 17861

Let's talk about the advantages of bait. 17874

Studies of the epidemiology of arthropod-borne virus infections at Mitchell River mission, Cape York Peninsula, north Queensland. I. Mosquito collections, 1963-1966. 17914

Alberta, 255,000 square miles, free of rats. 18175

Treatment for poisoning by slug bait. 18187

BALANCE OF NATURE

Interactions of *Aphelenchus avenae* and some nematode-trapping fungi in dual culture. 18134

BANANAS

The selectivity and activity of s-triazine herbicides in banana plants. 18423

BARLEY

Effects of barley stripe mosaic virus infection on the respiration of barley leaves. (Abstract). 17990

Transmission of a leafhopper-borne virus from naturally infected *Poa annua* in Czechoslovakia. 18039

Stand loss of small grains in Florida. 18057

The barley root-knot nematode in Illinois. 18135

Red light induction of gibberellin synthesis in leaves. 18468

BARLEY STRAW

Influence of nitrogen nutrition on *Fusarium* root rot of pinto bean and on its suppression by barley straw. 18028

BAROMETRIC PRESSURE

Stomatal movements; a yearly rhythm. 18473

BASIDIOMYCETES

Role of nitrogen in wood deterioration. VI. Mycelial fractions and model nitrogen compounds as substrates for growth of *Polyporus versicolor* and other wood-destroying and wood-inhabiting fungi. 18018

An arylsulfatase in the wood rotting basidiomycete, *Fomes geotropus*. 18035

BASIDIOSPORES

The pathogenicity of secondary and tertiary basidiospores of *Cronartium fusiforme*. 18052

Characteristics of a seasonal population of airborne *Fomes fomentarius* basidiospores. (Abstract). 18438

BEANS

Selective staining of dead cells in bean leaves injured by ozone. 17931

Analysis of competition in model systems. (Abstract). 17949

Effect of *Uromyces phaseoli* on the water relations of primary bean leaves. (Abstract). 17977

The role of cotton and bean seed exudate in pre-emergence infection by *Rhizoctonia solani*. 17994

The response of bean to ozone as related to infection by *Pseudomonas phaseolicola*. (Abstract). 18009

Auxin and crown gall tumor initiation. (Abstract). 18023

Cytokinin effect of benzyladenine: Increase of nucleic acid and protein synthesis in bean leaves. 18048

The effect of decomposing organic matter on zinc level in soil and plants. 18061

Cultural and pathogenicity studies of induced variants of bean and pea root rot *Fusarium* species. 18078

Vegetable crops. IV. Beans, sweet corn, tomatoes, rhubarb. 18173

Effect of culture filtrates of *Pseudomonas phaseolicola* on the growth of excised roots and callus tissue cultures of bean. (Abstract). 18422

BEDDING (LIVESTOCK)

Bacteriological studies of poultry litter fed to livestock. 18203

BEES

Functional degeneration of the venomous gland of *Apis* during the summer and winter. 17851

BEETS

Alterations in the auxin levels of resistant and susceptible hosts induced by the curly top virus. 18066

BENEFIN

Preplanting treatments for weed control in Connecticut shadegrown tobacco. 18157

BENZALKONIUM CHLORIDE

Experimental infection of gnotobiotic *Tenebrio molitor* and white rats with *Hymenolepis diminuta* (Cestoda: Cyclophyllidae). 18363

BENZOXAZOLINONE

Resistance in bermudagrass to the fall armyworm. 18104

BENZYL BENZOATE

A review of drug toxicity in the cat. 18420

BENZYLADENINE

Cytokinin effect of benzyladenine: Increase of nucleic acid and protein synthesis in bean leaves. 18048

BETA-SITOSTEROL

Mycelial growth and production of oospores as affected by beta-sitosterol, and the germination of oospores of *Phytophthora megasperma* var. *sojae*. (Abstract). 17979

BETULA

Control of the birch leaf minor with disulfoton. 18086

BIDRIN

Control of the elm leaf beetle in Arizona. 18128

BIOCHEMISTRY

Organothiocyanates as insecticides and carbamate synergists. 17785

Chemical sterilization of the stable fly *Stomoxys calcitrans* (Linne), with metepa and hempa. 17797

Metabolism of C14-labeled hemel in male house flies. 17798

Polygenic control of aldehyde oxidase and xanthine dehydrogenase in *Drosophila*. 17807

Influence of repellency on the efficacy of blatticides. IV. Comparison of four cockroach species. 17814

Studies on insect (*Periplaneta americana* L.) phosphofructokinase. 17827

Field tests of chemicals for control of the European corn borer. 17831

Reproductive behavior of the potato tuberworm, *Phthorimaea operculella* (Zeller), (Lepidoptera: Gelechiidae) and the effect of the chemosterilant metepa. 17836

Results concerning humoral immunity of *Pyrhocoris apterus* L. and *Galleria mellonella* F. 17842

Electrical activity in insect nerve cell bodies. 17846

Effects of mold inhibitors in larval diet on the biology of the cabbage looper. 17847

Effect of the chemosterilant metepa on the housefly, *Musca domestica* L. 17848

Comparison of application rates of some soil insecticides for control of western corn rootworm larvae in Missouri. 17866

Nucleoprotein synthesis during metamorphosis in *Drosophila virilis*. 17872

Aspartate aminotransferase in the pea aphid, *Acyrtosiphon pisum* (Harris). 17876

Ethylene oxide for the control of American foulbrood in honey bees. 17881

Some aspects of isoleucine metabolism in the yellow fever mosquito, *Aedes aegypti* (L.). 17891

On the tetrapyrrolic pigments, essential constituents of homochrome coloration in *Oedipoda coerulescens* L. (Acridae, Orthoptera). 17895

Permeability and excitation of insect muscle. 17896

Pyrethrins-piperonyl butoxide applied as a fog in an empty grain bin. 17897

Comparative life histories of chlordane-resistant and nonresistant German cockroaches. 17901

Physiological genetics of melanotic tumors in *Drosophila melanogaster*. V. Amino acid metabolism and tumor formation in the tu bw; st su-tu strain. 17902

Spermidine, the major polyamine component of turnip yellow mosaic virus. (Abstract). 17946

The suppression of actinomycetes by PCNB in culture media used for enumerating soil bacteria. 17980

Relationship of ethylene to curly top symptoms. (Abstract). 17988

The response of bean to ozone as related to infection by *Pseudomonas phaseolicola*. (Abstract). 18009

Resistance breakdown in maize to maize dwarf mosaic virus after treatment with atrazine. (Abstract). 18027

Studies on the pathogen and vector of dutch elm disease. A. Morphogenesis in *Ceratocystis ulmi*.

SUBJECT INDEX

BIOLOGICAL ASSAY

- B Chemicals stimulating feeding by *Scolytus multistriatus*. II. An improved method for the isolation of a toxic metabolite from *Rhizoctonia leguminicola*. 18051
- Systematic insecticide seed treatment tests on soybeans, bowling, c c. 18082
- Control of the birch leaf minor with disulfoton. 18086
- Effects on populations of corn rootworms of aldrin residues in soil four years after application. 18087
- Studies on a biological and a chemical method of controlling the dark rice field mosquito in Louisiana. 18090
- Further evaluation of acaricides for brown wheat mite control on winter wheat in Kansas, 1963-65. 18091
- Introduction to *Bacillus thuringiensis* and its uses. 18103
- Reinfestation of forest sites by the Texas leaf-cutting ant. 18107
- The tolerance of imported commodities to fumigation with methyl bromide. 18112
- Studies on hydrogen phosphide against the red flour beetle in a column of paddy. 18113
- Chemical control of the sunflower moth on sunflowers. 18123
- Control of the elm leaf beetle in Arizona. 18128
- The influence of plant-growth substances and their inhibitors on the host-parasite relationships of *Aphelenchoides ritzemabosi* in culture. 18155
- Fencerow weed control made easy. 18165
- Chemical control of nutsedge (*Cyperus rotundus* L.) and the metabolism of 3,6-dichloro-O-anisic acid (dicamba). 18169
- Hyperglycemia induced by 5-hydroxytryptamin in *Achatina fulica* (gastropod mollusca). 18178
- The effect of exposure to dieldrin on avoidance response extinction and conditioned heart rate in sheep. 18196
- Mercury content in feathers of Swedish birds from the past 100 years. 18198
- Factors affecting the storage, excretion, and placental transfer of dieldrin in dairy cattle. 18218
- Some physiological responses of ruminants to 2,2-dichlorovinyl dimethyl phosphate. 18219
- Immunochemical and biochemical interrelationship of *Streptococcus agalactiae* to the bovine. 18238
- Effects of selenium and vitamin E on nutritional muscular dystrophy in lambs. 18242
- Basic biological characteristics of mycoplasma. 18277
- Foot-and-mouth disease in swine. II. Some physicochemical characteristics of antibodies produced by chemically-treated and non-treated foot-and-mouth disease virus. 18289
- Biochemical and biophysical properties of canine distemper virus. 18306
- Ionizing irradiation of foot-and-mouth disease virus and its ribonucleic acid. 18309

- The effect of diet on the utilization of stable and radioactive copper in ruminants. 18334
- Biochemical and serologic characteristics of *Vibrio* isolants from cattle. 18337
- The influence of the host cell, ionic strength and chymotrypsin on foot-and-mouth disease virus electrophoretic mobility. 18345
- Further evaluation of animal systemic insecticides, 1967. 18347
- Horn fly control with coumaphos. 18349
- Northern fowl mite control on mature turkeys on range. 18350
- The blood of rabbits infected with *Strongyloides papillosus* after 20 serial passages through rabbits. 18367
- Degradation of diazinon by synergistic microbial action. 18384
- Niagara NIA-10242 insecticide residues: Their persistence in coastal bermudagrass, corn, and silages, and their effect, fed in silage, on lactating cows. 18400
- Insecticide residues in pest control. 18401
- Residues of diazinon, coumaphos, ciodrin, methoxychlor, and rotenone in cow's milk from treatments similar to those used for ectoparasite and fly control on dairy cattle, with notes on safety of diazinon and ciodrin to calves. 18403
- Swedish studies of game that had been found dead as well as specimens that had been shot. 18411
- On the principal way of attack of rotenone in fish. 18415
- The toxicology of different organo-mercurials used as fungicides. 18418
- Effects of plant growth regulators and other compounds on flow of latex in *Hevea brasiliensis*. 18421
- Effect of culture filtrates of *Pseudomonas phaseolicola* on the growth of excised roots and callus tissue cultures of bean. (Abstract). 18422
- The selectivity and activity of s-triazine herbicides in banana plants. 18423
- Influence of micro-organisms on the distribution in roots of phosphate labelled with phosphorus-32. 18424
- Effect of thiram upon glucose catabolism by *Fusarium oxysporum*. (Abstract). 18425
- Interaction of growth regulators in the senescence of nasturtium leaf disks. 18426
- Laboratory tests of fungicides against *Peronospora parasitica* (Pers. ex. Fr.) Fr. 18433
- Plant growth regulations in *Ditylenchus dipsaci*, *Ditylenchus trifurmis* and host tissues. 18437
- Swedish restrictions concerning the use of mercury compounds for seed disinfection. 18441
- The interrelationships of *Rhizoctonia solani* and *Helminthosporium vagans*, nitrogen, and variety on alkaloids in *Festuca arundinacea*. (Abstract). 18443
- Disc electrophoresis of sonic extracts of five phytopathogenic bacteria. (Abstract). 18444

- Survival and growth of *Fomes annosus* at high concentrations of borax. (Abstract). 18450
- Red pine meedle structure. 18451
- A biochemical role for boron. 18456
- Oxalate biosynthesis and pathways for glucose catabolism in *Sclerotium rolfsii* Sacc. 18459
- Oxalic acid biosynthesis by *Sclerotium rolfsii*. (Abstract). 18460
- Light stimulated biosynthesis of gibberellins in *Fusarium moniliforme*. 18462
- A physiologic-genetic study of the differential response of navy beans (*Phaseolus vulgaris* L.) to zinc. 18466
- Wound-induced gibberellins. 18467
- Red light induction of gibberellin synthesis in leaves. 18468
- Studies on the fungitoxicity of captan. Vi. Decomposition of 35S-labelled captan by *Neurospora crassa* conidia. 18469
- Metabolism of amitrole (3-amino-1,2,4-triazole) in relation to the differential susceptibility of *Cirsium arvense* (L.) Scop. ecotypes. 18474
- Notice of filing of petition regarding pesticide chemicals. kirk, j k. 18476
- Nutritional requirements of a tomato tissue culture: Growth promoting factors from peas. 18478
- The study of the effect of amitrol on the respiration and activity of some enzymes in poppy plants (*Papaver somniferum* L.). 18479
- Effect of 3-indoleacetic acid on phospholipid membrane components of *Avena coleoptiles*. 18481
- ## BIOLOGICAL ASSAY
- A sex pheromone from the citrus mealybug. 17828
- New techniques to bioassay the sex attractant of pink bollworms with olfactometers. 17829
- A study of the nuclear polyhedrosis virus on the beet armyworm, *Spodoptera exigua* (Hubner), with emphasis on stability, pathogenicity and histopathology. 17837
- Fungistatic constituents in citrus varieties resistant to the mal-secco disease. 18046
- The effect of decomposing organic matter on zinc level in soil and plants. 18061
- A bioassay technique for screening feeding stimulants for larvae of tobacco budworm. 18096
- Mineral and endocrine interrelationships in renal calcification. 18292
- Improved techniques for the detection of foot-and-mouth disease virus in carrier cattle. 18325
- Wound-induced gibberellins. 18467
- Chemistry and physiologic action of the antibiotic phytoactin. 18492
- ## BIOLOGICAL CLOCKS
- Stomatal movements; a yearly rhythm. 18473

BIOLOGICAL CONTROL (INSECTS)

Investigations on the *Heliothis* nuclear polyhedrosis virus and its development as a biological control agent.

17779

The infection of *Boophilus microplus* with *Babesia bigemina*.

17795

Metabolism of C 14-labeled hemolymph in male house flies.

17798

Preliminary evaluation of a granulosis virus for control of the codling moth.

17822

Bionomics, enemies and population dynamics of *Javesella pellucida* (F.) (Hom., Delphacidae).

17875

Studies on a biological and a chemical method of controlling the dark rice field mosquito in Louisiana.

18090

BIOLOGICAL CONTROL (PESTS)

Commonwealth Institute of biological control-Indian Station.

17923

Analysis of competition in model systems. (Abstract).

17949

BIOLOGICAL TRANSPORT

Duck plague.

18263

BIOLOGY

The biology and ecology of *Fusarium oxysporum* f. *melonis* in soil and the root zones of host and nonhost plants.

17944

Biological and ecological relationships of the fungus, *Entomophthora coronata* (Costantin) Kevorkian and the garden symphytan, *Scutigerella immaculata* (Newport).

18012

Effect of organo-Phosphorus insecticides on the warm blooded animals and cure thereof.

18193

Avian adeno-like viruses- Characterization and comparison of seven isolates.

18224

Basic biological characteristics of mycoplasma.

18277

The effect of environmental and biological factors on the persistence of malathion applied in low volume technical and emulsifiable concentrate forms to cotton plants.

18386

Response of early-weaned pigs to amino acid supplementation of corn diets.

18391

Water pollution. Effects of pollution on fish life. General aspects of water pollution biology.

18395

Isolation, identification, purification, and biological properties of the antibiotic phytoactin.

18489

BIOPHYSICS

Electron optical and buoyant density studies of hog cholera virus.

18285

Foot-and-mouth disease in swine. II. Some physicochemical characteristics of antibodies produced by chemically-treated and non-treated foot-and-mouth disease virus.

18289

Biophysical studies of Teschen disease virus (Talfan strain).

18339

The influence of the host cell, ionic strength and chymotrypsin on foot-and-mouth disease virus electrophoretic mobility.

18345

BIRDS

Distribution of mercury compounds in fish and birds.

18180

Mercury content in feathers of Swedish birds from the past 100 years.

18198

Actions of vitamin D3 and sex hormones on calcium metabolism of bone in birds, particularly in hens.

18226

Increased incidence of avian leukosis in response to excess vitamin A.

18280

BLABERIDAE

Reproduction of some poorly known species of *Blattaria*.

17765

BLABERUS DISCOIDALIS

Reproduction of some poorly known species of *Blattaria*.

17765

BLACK POD (CACAO)

Increasing the efficacy of fungicidal control of black pod rot of cacao incited by *Phytophthora palmivora*. (Abstract).

18041

BLACK SHANK (TOBACCO)

Interaction of *Meloidogyne javanica* and *Phytophthora parasitica* var *nicotianae* on *Nicotiana tabacum* (N. C. 95). (Abstract).

18036

BLAST (RICE)

Studies on the chemical control of rice blast caused by *Piricularia oryzae* Cav.

17942

Relationships among races of *Piricularia oryzae*. (Abstract).

18016

BLATTA ORIENTALIS

Influence of repellency on the efficacy of blatticides. IV. Comparison of four cockroach species.

17814

BLATTELLA GERMANICA

Latest research plans on the problem of cockroach resistance.

17805

Influence of repellency on the efficacy of blatticides. IV. Comparison of four cockroach species.

17814

Comparative life histories of chlordane-resistant and nonresistant German cockroaches.

17901

BLATTIDAE

Let's talk about the advantages of bait.

17874

BLINDNESS

An enzootic of pseudorabies in swine in California.

18257

BLISTER RUST (PINUS MONTICOLA)

Concentrations of solutes in blister rust infections of western white pine. (Abstract).

18030

BLOOD

The effect of blood-feeding on the longevity of radiation-resistant yellow-fever mosquitoes.

17885

Response of lymphocyte-depleted calves to fluid tetanus toxoid.

18293

On the development of *Cysticercus fasciolaris* in albino rat liver and its reaction on the host tissue.

18381

BLOOD ANALYSIS

Growth and development of the bovine as related to certain endocrine factors.

18234

Pathological changes of blood depending on sex and age of rabbits experimentally infected with a sheep strain of *Strongyloides papillosus*.

18358

The blood of rabbits infected with *Strongyloides papillosus* after 20 serial passages through rabbits.

18367

BLOOD CELLS

Influence of a virus disease on the hemocytic anticytogrammic reactions in insects.

17893

Pathological changes of blood depending on sex and age of rabbits experimentally infected with a sheep strain of *Strongyloides papillosus*.

18358

The blood of rabbits infected with *Strongyloides papillosus* after 20 serial passages through rabbits.

18367

BLOOD CHEMISTRY

Low temperature irradiation applied to neutron activation analysis of mercury in human whole blood.

18484

BLOOD MEAL

Retraction of the claim that host pregnancy affects pupal production by the tsetse fly.

17867

BLOOD PLASMA

Levels of 5 beta-pregnan-3 alpha, 6 alpha-diol-20-one in urine and its relationship to other metabolites of progesterone in urine of the non-pregnant domestic sow.

18189

BLOOD PROTEINS

Effect of aflatoxin on serum protein fractions of day-old ducklings.

18191

BLOOD SERUM

Influence of dietary vitamin A on cholesterol metabolism of chickens.

18185

Water, electrolyte, and acid-base alterations in experimental canine leptospirosis.

18244

Serologic response of swine to *Escherichia coli* antigens.

18273

The utilization of vitamin A and carotene by ruminants. 1. Vitamin A potency of carotenes in corn silage fed to lambs. 2. The effect of time and route of administration of vitamin A on liver vitamin A storage by steers. 3. The effect of route of administration of vitamin A on blood serum and liver vitamin A concentrations in steers at subsequent time intervals.

18281

Mineral and endocrine interrelationships in renal calcification.

18292

Experimental production of rheumatoid arthritis of swine: Physiopathologic changes of tissues.

18319

BLUE DWARF (OATS)

Natural acquisition compared with mechanical inoculation of six-spotted leafhoppers for transmission of the oat blue dwarf virus. (Abstract).

18085

BLUE STAIN (CONIFERAE)

Pathogenicity of some blue-stain fungi in the genus *Ceratocystis*. (Abstract).

17945

BLUETONGUE

Bluetongue of sheep and cattle: past, present, and future.

18217

BLUETONGUE VIRUS

Experimental bluetongue disease in white-tailed deer.

18336

BOGS

Larch sawfly survival in relation to water levels and microtopography in tamarak bogs.

17839

BOLL ROT (COTTON)

Evaluation of systemic fungicides and insecticides for the control of cotton boll rot in vitro. (Abstract).

17943

BOMBUS

The foraging behavior of honeybees (*Apis mellifera*) and bumblebees (*Bombus* Spp.) on

SUBJECT INDEX

BOMBYX MORI

blackcurrant (*Ribes nigrum*), raspberry (*Rubus idaeus*) and strawberry (*Fragaria x ananassa*) flowers.

17732

BOMBYX MORI

Accumulation of glycine in the fat body of the silkworm, *Bombyx mori* L.

17803

Electrophoretic variation of proteinase in the digestive juice of the silkworm, *Bombyx mori* L.

17815

Enzymatic hydrolysis of the encysted parasporal of *Bacillus thuringiensis* by *Bombyx mori* L. proteases.

17852

BONE MARROW

Hemophilia-like disease of swine: Cytogenetic studies.

18223

BONES

Actions of vitamin D3 and sex hormones on calcium metabolism of bone in birds, particularly in hens.

18226

BOOPHILUS MICROPLUS

The infection of *Boophilus microplus* with *Babesia bigemina*.

17795

Tick resistance in cattle: its stability and correlation with various genetic characteristics.

18348

Resistance of cattle to the tick *Boophilus microplus* (Canestrini). II. Stages of the life cycle of the parasite against which resistance is manifest.

18351

BORAX

Survival and growth of *Fomes annosus* at high concentrations of borax. (Abstract).

18450

BORON

Relation of boron to cherry rosette disease in Oregon, and the possible implication of a virus.

17954

A biochemical role for boron.

18456

BOUTELOUA CURTIPENDULA

Desert grassland mesquite and fire.

17919

BOUTELOUA GRACILIS

Desert grassland mesquite and fire.

17919

BOVINE PAPILLOMA VIRUS

The response of various tissues in neonate calves to bovine papilloma virus (BPV).

18251

Electron microscopy of bovine papilloma and deer fibroma viruses.

18328

BOVINE VIRUS DIARRHEA VIRUS

Characterization of bovine viral diarrhea viruses by their interactions with susceptible host cells.

18243

BRACHYRHINUS SULCATUS

Black vine weevil larval damage to concord grape roots at different population densities.

18088

BRAIN

Content and synthesis of gamma aminobutyric acid in the larval brain of *Drosophila melanogaster*.

17799

Salmonella dublin meningitis in piglets.

18287

BRASSICA

Control of mustard aphid (*Lipaphis erysimi* Kalt.) by systemic insecticides.

18115

BRASSICA JUNCEA

The development of Albugo candida-induced 'green islands' on *Brassica juncea* cotyledons.

17992

BREEDING

Bionomics of the mosquito *Anopheles franciscanus* Mecracken in California.

17783

Electrophoretic variation of proteinase in the digestive juice of the silkworm, *Bombyx mori* L.

17815

Difference in response of two strains of screw-worm flies to the male pheromone.

17823

Reproductive behavior of the potato tuberworm, *Phthorimaea operculella* (Zeller), (Lepidoptera: Gelechiidae) and the effect of the chemosterilant metepa.

17836

The flight range of *Simulium damnosum*.

17854

Tetraploid females in the hymenopteron, *Mormoniella*.

17906

Lack of cytoplasmic inheritance of alfalfa resistance to the spotted alfalfa aphid.

18099

Role of host plant in production of winged forms by a green strain of pea aphid *Acyrtosiphon pisum*.

18120

Resistance of southern peas to the cowpea curculio.

18125

BROADBEANS

The tolerance of imported commodities to fumigation with methyl bromide.

18112

Role of host plant in production of winged forms by a green strain of pea aphid *Acyrtosiphon pisum*.

18120

BROCCOLI

Anthrenus melanocerus as a predator of the green peach aphid on sugar beets and broccoli.

18121

BROWN ROT (APPLES)

Pectin methyl-trans-eliminase as the maceration factor of *Sclerotinia fructigena* and its significance in brown rot of apple.

17965

BROWN RUST (WHEAT)

On light-sensitivity in germinating uredospores of wheat brown rust.

18080

BRUCELLA SUI

Histopathologic changes in male swine with experimental Brucellosis.

18237

BRUCELLOSIS

Histopathologic changes in male swine with experimental Brucellosis.

18237

Utilization of the card test in brucellosis eradication.

18299

BUFFER SUBSTANCES

Hog cholera: Replication of hog cholera virus in tissue culture with cytopathic effect.

18231

BULBS

On the dispersal of the bulbs of *Oxalis cernua* Thunb. by mole-rats (*Spalax ehrenbergi* Nehring).

18163

BURSECTOMY

Effect of bursectomy on the rous virus tumour induction in chickens.

18311

BUSH REDPEPPERS (VEGETABLE)

Effect of *Xanthomonas vesicatoria* on loss of electrolytes from leaves of *Capsicum annuum*.

17970

BUSHY STUNT (TOMATOES)

Tomato bushy stunt virus on tomato crops in Argentina.

18047

BUTTERFLIES

Some aspects of mating behavior in butterflies.

17864

CACAO

Circadian emergence rhythm of a tropical scolytid, *Xyleborus ferrugineus*.

17767

Increasing the efficacy of fungicidal control of black pod rot of cacao incited by *Phytophthora palmivora*. (Abstract).

18041

CADMIUM

Relationships between zinc nutrition and alkaline phosphatase activity in the chick.

18220

CADRA CAUTELLA

Chambers for collecting and observing single pupae of three stored-product moths.

17883

CALCIFICATION (PHYSIOLOGICAL)

Mineral and endocrine interrelationships in renal calcification.

18292

CALCIUM

Actions of vitamin D3 and sex hormones on calcium metabolism of bone in birds, particularly in hens.

18226

Water, electrolyte, and acid-base alterations in experimental canine leptospirosis.

18244

Effect of calcium availability on alfalfa grown in calcareous high sodium soils.

18464

CALIFORNIA ENCEPHALITIS VIRUS

California-encephalitis-group viruses in Florida rabbits: Report of experimental and sentinel studies.

18265

CALLIPHORA VICINA

The formation of the cuticular ridges in the larval pharynx of the blowfly (*Calliphora vicina* R.-D.).

17809

CALLUS (PLANTS)

Isolation and properties of *Plasmodiophora brassicae* plasmodia from infected crucifer tissues and tissue culture callus. (Abstract).

18008

Cytomorphological features of TMV-INFECTED tobacco callus cells in tissue culture.

18063

CALONECTRIA NIVALIS

Ecology and possible significance of *Perithecia* of *Calonectria nivalis* in the Pacific Northwest.

17971

CALVES

Growth and development of the bovine as related to certain endocrine factors.

18234

Gastrointestinal parasitism in feeder calves of southern Illinois.

18279

Response of lymphocyte-depleted calves to fluid tetanus toxoid.

18293

Age susceptibility and excretion of *Salmonella typhimurium* in calves.

18312

CAMPONOTUS

New data concerning the ant genus *Camponotus* (Hymenoptera, Formicidae) from the USSR fauna.

17739

CANDIDA ALBICANS

On a mechanism of fungicidal action of surface-active agents.

18475

CANINE DISTEMPER VIRUS

Biochemical and biophysical properties of canine distemper virus.

18306

CANKER (PLUMS)

Systemic-chemical paints for the control of *Cytospora* canker disease in prune trees.

17996

SUBJECT INDEX

CATTLE

- CANKER (POPULUS DELTOIDES)**
Susceptibility of weakened cottonwood stems to fungi associated with blackstem. 18055
- CANKER (POPULUS TRICHOCARPA)**
Susceptibility of weakened cottonwood stems to fungi associated with blackstem. 18055
- CANKER (POPULUS)**
Occurrence of poplar cankers caused by *Fusarium solani* in Iowa. 17975
- CANTALOUPE**
Vegetable crops III. Cucumbers, watermelons, cantaloupes, squash. 18168
- CAPTAN**
Chemical control of the stem nematode *Ditylenchus dipsaci*. 18137
Studies on the fungitoxicity of captan. Vi. Decomposition of 35S-labelled captan by *Neurospora crassa* conidia. 18469
- CARABIDAE**
Defense mechanisms of arthropods. XXI. Formic acid and n-nonyl acetate in the defensive spray of two species of *Heliumorphoides*. 17816
- CARBAMATES**
Organothiocyanates as insecticides and carbamate synergists. 17785
Tests with insecticides for the control of resistant *Myzus persicae* (Sulzer) on year-round chrysanthemums. 18095
Anthelmintic activity of some carbamate derivatives. 18374
- CARBARYL**
Organothiocyanates as insecticides and carbamate synergists. 17785
Note on the determination of carbaryl residues in hen skin. 18406
- CARBOHYDRATES**
Carbohydrate distribution in grafted potato plants representing two types of resistance to virus X. 17948
Effect of ration modifications on aflatoxicosis in the rat. 18382
Effect of defoliant on carbohydrate and nitrogen metabolism in cotton plant leaves. 18448
- CARBON**
The effect of carbon source, carbon to nitrogen ratios, and organic amendments on survival of propagules of *Verticillium albo-atrum* in soil. 17921
- CARBON DIOXIDE**
Selective recovery of volatile products from house flies treated with radioactive insecticide chemicals and synergists. 17796
Anaerobic metabolism of *Albugo candida*-infected radish cotyledons. 17953
Premature death of adult rusted wheat plants in relation to carbon dioxide evolution by root systems. 17964
Carbon dioxide-powered plot sprayer for turf-grass disease control fungicide application. 17969
Active uptake of *Helminthosporium carbonum* toxin and its effect on CO₂ dark fixation by corn. (Abstract). 18453

- CARBON ISOTOPES**
Selective recovery of volatile products from house flies treated with radioactive insecticide chemicals and synergists. 17796
Metabolism of C14-labeled hemel in male house flies. 17798
Some aspects of isoleucine metabolism in the yellow fever mosquito, *Aedes aegypti* (L.). 17891
Degradation of diazinon by synergistic microbial action. 18384
- CARBONATES**
Oxalate metabolism in sheep and its effect on the anion-cation balance. 18188
- CARBOXYLIC ACIDS**
Quantitative changes in organic acids in roots and leaves from grapefruit seedlings infected with *Rhizopholus similis*. 18138
- CARCASSES**
Hemiptera associated with pig carrion. 17764
- CARDIOCHILES NIGRICEPS**
Egg and larval development of *Cardiochiles nigriceps*. 17855
Studies of the suitability of certain *Heliothis* spp. as a host for *Cardiochiles nigriceps* Vierick. 18141
- CAROTENES**
The utilization of vitamin A and carotene by ruminants. 1. Vitamin A potency of carotenes in corn silage fed to lambs. 2. The effect of time and route of administration of vitamin A on liver vitamin A storage by steers. 3. The effect of route of administration of vitamin A on blood serum and liver vitamin A concentrations in steers at subsequent time intervals. 18281
- CAROTENOID**
Influence of dietary vitamin A on cholesterol metabolism of chickens. 18185
- CARPOCAPSA POMONELLA**
Preliminary evaluation of a granulosis virus for control of the codling moth. 17822
- CARROTS**
The influence of crop-rotation on the attack of carrots by *Meloidogyne hapla* Chitw. and symptom formation. 18068
Residues of diazinon in carrots after treatment against cyclodiene-resistant carrot rust fly. 18093
- CATS**
Characterization studies on feline panleucopenia virus. (with). II. Pathogenesis in the host. 18233
Serologic survey for toxoplasma antibodies in a colony of research dogs and cats in California. 18323
Eight feline viruses: An electron microscopic study. 18324
The occurrence of bacteria in chronic purulent eye discharge. 18335
Lesions caused by the hepatic trematode, *Metrochis conjunctus*, Cobbold, 1860; A comparative study in *Carnivora*. 18369
A review of drug toxicity in the cat. 18420
- CATTLE**
Further studies on the effect of bovine diet on face fly development. 17766

- The development of *Theileria parva* in the salivary glands of the tick, *Rhipicephalus appendiculatus*. 17873
- Response of beef cows to exogenous progesterone and estradiol at various stages postpartum. 18192
- Nematodiasis in Louisiana dairy cattle. Impact of host nutrition upon experimental ostertagiasis in the bovine. 18212
- Bluetongue of sheep and cattle: past, present, and future. 18217
- Immunochemical and biochemical interrelationship of *Streptococcus agalactiae* to the bovine. 18238
- A comparative study of cell wall glycopeptide structure of some bovine vibrios. 18247
- The experimental use of bull semen contaminated with *Pseudomonas aeruginosa* organisms. 18249
- The response of various tissues in neonate calves to bovine papilloma virus (BPV). 18251
- An outbreak of ringworm among cattle in Shimane. 18252
- Mycoplasmas: their role in bovine disease. 18264
- Pathology a-d immunofluorescence studies of bovine mycoplasma mastitis. 18267
- Contagious bovine pleuropneumonia and the problems associated with its control. 18276
- The utilization of vitamin A and carotene by ruminants. 1. Vitamin A potency of carotenes in corn silage fed to lambs. 2. The effect of time and route of administration of vitamin A on liver vitamin A storage by steers. 3. The effect of route of administration of vitamin A on blood serum and liver vitamin A concentrations in steers at subsequent time intervals. 18281
- Psittacosis-lymphogranuloma venereum agent isolated during an abortion epizootic in goats. 18286
- Utilization of the card test in brucellosis eradication. 18299
- Some factors affecting interferon production by foot-and-mouth disease virus in bovine tissue cultures. 18316
- Interference between modified and virulent strains of foot-and-mouth disease virus. 18317
- Improved techniques for the detection of foot-and-mouth disease virus in carrier cattle. 18325
- The epizootiological importance of foot-and-mouth disease carriers. 1. Experimentally produced foot-and-mouth disease carriers in susceptible and immune cattle. 18326
- Electron microscopy of bovine papilloma and deer fibroma viruses. 18328
- Administration of glycuronic acid and its excretion in dairy cows. 18333
- Biochemical and serologic characteristics of *Vibrio isolants* from cattle. 18337
- Further evaluation of animal systemic insecticides, 1967. 18347
- Tick resistance in cattle: its stability and correlation with various genetic characteristics. 18348

SUBJECT INDEX

CECIDOMYIIDAE

- Horn fly control with coumaphos. 18349
- Resistance of cattle to the tick *Boophilus microplus* (Canestrini). II. Stages of the life cycle of the parasite against which resistance is manifest 18351
- Cattle-mosquito study begins in south Texas. 18352
- Effect of desiccation on survival of the free-living stages of *Trichostrongylus colubriformis*. 18353
- A new technique for the recovery of *Fasciola gigantica* eggs from cattle faeces. 18354
- A method for evaluation of vaccines containing *Pasteurella multocida*. 18380
- Niagara NIA-10242 insecticide residues: Their persistence in coastal bermudagrass, corn, and silages, and their effect, fed in silage, on lactating cows. 18400
- Agricultural (livestock) wastes. 18404

CECIDOMYIIDAE

- Ecology of insect swarms. V. Movement of individual midges, *Anarete pritchardi*, within a swarm. 17801

CELERY

- Conditions for infection of celery by *Septoria apiicola*. 18059
- Manganese toxicity in celery. 18413

CELL NUCLEUS

- Investigations on the *Heliothis* nuclear polyhedrosis virus and its development as a biological control agent. 17779
- Ordered chromosomal DNA synthesis in *Drosophila melanogaster*. 17835

CELL WALL

- A comparative study of cell wall glycopeptide structure of some bovine vibrios. 18247

CELLS

- Electrical activity in insect nerve cell bodies. 17846
- Growth of arboviruses in monolayers from subcultured mosquito embryo cells. 17870
- Cellular immune responses of insects to foreign tissue implants. 17871
- Selective staining of dead cells in bean leaves injured by ozone. 17931
- Ultrastructure of *Zea mays* leaf cells infected with Johnson grass strain of sugarcane mosaic virus. (Abstract). 17986
- Ultrastructural changes in apple leaf cells induced by virulent and avirulent strains of *Erwinia amylovora*. (Abstract). 17989
- Bacterial canker of tomato; inoculum level needed for infection. 18071
- Attempted cultivation of nematode cells. (Abstract). 18133
- Seminal vesiculitis syndrome: Lesions in genital organs of young bulls. 18208
- Characterization studies on feline panleucopenia virus. (with). II. Pathogenesis in the host. 18233
- Characterization of bovine viral diarrhoea viruses by their interactions with susceptible host cells. 18243

- Degradation of cellular ribonucleic acid in Newcastle disease virus infected cells. 18258

- Effects of genetic cellular resistance on cell transformation and virus replication in chicken hemopoietic cell cultures infected with avian myeloblastosis virus (BAI-0A). 18295

- Experimental transmission of two canine neoplasms: Lymphosarcoma and mast cell leukemia. 18310

- Eight feline viruses: An electron microscopic study. 18324

- Electron microscopy of bovine papilloma and deer fibroma viruses. 18328

- On the development of *Cysticercus fasciolaris* in albino rat liver and its reaction on the host tissue. 18381

- Effect of ration modifications on aflatoxicosis in the rat. 18382

CENTRIFUGATION

- The response of various tissues in neonate calves to bovine papilloma virus (BPV). 18251

CEPHALOSPORIUM GREGATUM

- Sporulation of *Cephalosporium gregatum* on naturally infested soybean straw. (Abstract). 18455

CERAMBYCIDAE

- Contribution to the study of the genera *Stizocera* Serv., 1834. Brazilian species (Coleoptera, Cerambycidae). 17774

CERATOCYSTIS

- Pathogenicity of some blue-stain fungi in the genus *Ceratocystis*. (Abstract). 17945

CERATOCYSTIS ULMI

- A mechanism of enhanced resistance to *Ceratocystis ulmi* in American elms treated with sodium trichlorophenylacetate. 17956

- Studies on the pathogen and vector of Dutch elm disease. A. Morphogenesis in *Ceratocystis ulmi*. B. Chemicals stimulating feeding by *Scolytus multistriatus*. II. An improved method for the isolation of a toxic metabolite from *Rhizoctonia leguminicola*. 18051

CERATOPOGONIDAE

- Sensillae on the antennae of blood-sucking biting midges (Diptera, Ceratopogonidae). 17880

- Culicoides control in the Canal Zone by water management. 17912

CERCOSPORA ALHAGI

- Some additions to the species of *Cercospora* from West Pakistan. 18040

CERCOSPORA CONVULVULI

- Some additions to the species of *Cercospora* from West Pakistan. 18040

CERCOSPORA MEDICAGINIS

- Some additions to the species of *Cercospora* from West Pakistan. 18040

CERCOSPORA PREMNAE

- Some additions to the species of *Cercospora* from West Pakistan. 18040

CESIUM

- Determination of cesium-137 and related sampling problems of dairy cattle feeds, 1962-1967. 18197

CESIUM ISOTOPES

- Comparative Cs-137 content of agricultural crops grown in a contaminated soil. 18389

- Seasonal variation in the concentration of caesium-137 in grass and alfalfa. 18487

CESTODA

- An electron microscope study of the tegument and associated structures of the procercoid of *Diphylobothrium latum* (L.). 18355

- Hydatid latex agglutination with scolex and crude polysaccharide antigens. 18360

CHALCODERMUS AENEUS

- Resistance of southern peas to the cowpea curculio. 18125

CHEMICAL CONTROL (INSECTS)

- Subterranean termite studies in southern Ontario. 17747

- Organothiocyanates as insecticides and carbamate synergists. 17785

- Chemical sterilization of the stable fly *Stomoxys calcitrans* (Linne), with metepa and hempa. 17797

- Influence of repellency on the efficacy of blatticides. IV. Comparison of four cockroach species. 17814

- Field tests of chemicals for control of the European corn borer. 17831

- Reproductive behavior of the potato tuberworm, *Phthorimaea operculella* (Zeller), (Lepidoptera: Gelechiidae) and the effect of the chemosterilant metepa. 17836

- Effect of the chemosterilant metepa on the housefly, *Musca domestica* L. 17848

- Comparison of application rates of some soil insecticides for control of western corn rootworm larvae in Missouri. 17866

- Let's talk about the advantages of bait. 17874

- Pyrethrins-piperonyl butoxide applied as a fog in an empty grain bin. 17897

- Comparative life histories of chlordane-resistant and nonresistant German cockroaches. 17901

- Systematic insecticide seed treatment tests on soybeans, bowling, c c. 18082

- Aluminum foil and white polyethylene mulches to repel aphids and control watermelon mosaic. 18083

- Control of the birch leaf minor with disulfoton. 18086

- Further evaluation of acaricides for brown wheat mite control on winter wheat in Kansas, 1963-65. 18091

- Residues of diazinon in carrots after treatment against cyclodiene-resistant carrot rust fly. 18093

- Reinfestation of forest sites by the Texas leaf-cutting ant. 18107

- The tolerance of imported commodities to fumigation with methyl bromide. 18112

- Chemical control of the sunflower moth on sunflowers. 18123

- Control of the elm leaf beetle in Arizona. 18128

- Further evaluation of animal systemic insecticides, 1967. 18347

- Horn fly control with coumaphos. 18349

- Northern fowl mite control on mature turkeys on range. 18350

SUBJECT INDEX

CHLOROPIDAE

- Residues of diazinon, coumaphos, ciodrin, methoxychlor, and rotenone in cow's milk from treatments similar to those used for ectoparasite and fly control on dairy cattle, with notes on safety of diazinon and ciodrin to calves. **18403**
- CHEMICAL CONTROL (PESTS)**
Pesticides and pollution. SB959.0U4. **17863**
- Effect of variety on the control of potato late blight with fungicides. (Abstract). **18013**
- Insecticide residues in pest control. **18401**
- CHEMICAL CONTROL (PLANT DISEASES)**
Soil fumigants tested for control of crown gall. **17973**
- Chemical control of scab and anthracnose on susceptible varieties of Citrus in Florida. (Abstract). **17981**
- Chemical control of corn head smut. **18062**
- New fungicides effective for pecan scab control in Georgia. **18077**
- CHEMICAL CONTROL (WEEDS)**
Evaluation of weed control treatments in field-grown tobacco. **18158**
- Weeds in agronomic crops. Field corn, soybeans. **18159**
- Ornamentals. **18164**
- Fencerow weed control made easy. **18165**
- Chemical control of nutsedge (*Cyperus rotundus* L.) and the metabolism of 3,6-dichloro-O-anisic acid (dicamba). **18169**
- Vegetable crops. IV. Beans, sweet corn, tomatoes, rhubarb. **18173**
- CHEMICAL REACTIONS**
Mechanisms of inhibition and uncoupling of oxidative phosphorylation in housefly mitochondria. **17899**
- Degradation of diazinon by synergistic microbial action. **18384**
- CHEMICALS**
Selective staining of dead cells in bean leaves injured by ozone. **17931**
- Studies on the chemical control of rice blast caused by *Piricularia oryzae* Cav. **17942**
- Chemical treatment of Hypoxylon cankers on aspen. (Abstract). **17959**
- Effect of soil fungicides on development of fungi in soil and on kernels of groundnut. **18003**
- Tests with insecticides for the control of resistant *Myzus persicae* (Sulzer) on year-round chrysanthemums. **18095**
- Chemical control of the sunflower moth on sunflowers. **18123**
- Vegetable crops III. Cucumbers, watermelons, cantaloupes, squash. **18168**
- Chemical control of nutsedge (*Cyperus rotundus* L.) and the metabolism of 3,6-dichloro-O-anisic acid (dicamba). **18169**
- Oligosaccharidases from *Macracanthorhynchus hirudinaceus* (*Acanthocephala*) from swine. **18186**
- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. Diuron. **18396**
- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. alphanaphthaleneacetic acid. **18397**
- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. Trifluralin. **18398**
- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. Ethyl 4,4'-Dichlorobenzilate. **18399**
- Effects of plant growth regulators and other compounds on flow of latex in *Hevea brasiliensis*. **18421**
- Inorganic composition and microscopy of citrus roots grown under several copper and soil amendment conditions. **18428**
- Effect of calcium availability on alfalfa grown in calcareous high sodium soils. **18464**
- Notice of filing of petition regarding pesticide chemicals. kirk, j. k. **18476**
- CHEMISTRY**
Immunochemical and biochemical interrelationship of *Streptococcus agalactiae* to the bovine. **18238**
- Gas chromatographic detector for simultaneous sensing of phosphorus and sulfur-containing compounds by flame photometry. **18483**
- Isolation, identification, purification, and biological properties of the antibiotic phytoactin. **18489**
- Heterocyclically substituted monohalogeno-1,3,5-triazines. Patent 3,407,201. **18490**
- CHEMOSTERILANTS**
Chemical sterilization of the stable fly *Stomoxys calcitrans* (Linne), with metepa and hempa. **17797**
- Metabolism of C14-labeled hemel in male house flies. **17798**
- Reproductive behavior of the potato tuberworm, *Phthorimaea operculella* (Zeller), (Lepidoptera: Gelechiidae) and the effect of the chemosterilant metepa. **17836**
- Effect of the chemosterilant metepa on the housefly, *Musca domestica* L. **17848**
- CHEMURGY**
Effects of urease inhibitors on sheep fed diets containing urea. **18182**
- CHERMES PICEAE**
Survival of the balsam woolly aphid on *Abies* logs. **18084**
- CHERRIES**
Soil fumigants tested for control of crown gall. **17973**
- CHICK EMBRYOS**
Lipids of Venezuelan equine encephalomyelitis virus and their relationship to the lipids of the host. **18256**
- Degradation of cellular ribonucleic acid in Newcastle disease virus infected cells. **18258**
- Isolation of a new toxin from cultures of *Aspergillus flavus*. **18416**
- CHICKEN EMBRYO LETHAL ORPHAN VIRUS**
Avian adeno-like viruses- Characterization and comparison of seven isolates. **18224**
- CHICKENS**
Influence of dietary vitamin A on cholesterol metabolism of chickens. **18185**
- Experimental colibacillosis and the development of carries in laying hens. **18206**
- Actions of vitamin D3 and sex hormones on calcium metabolism of bone in birds, particularly in hens. **18226**
- Establishment of the pathological relationship between plant and animal isolates of *Geotrichum candidum*, in embryonated chicken eggs. **18239**
- Myoglobin in control and dystrophic chickens. **18250**
- Pathological changes of acute Newcastle disease in an outbreak in Miyazaki Prefecture with special reference to those of the cloaca. **18268**
- Effects of genetic cellular resistance on cell transformation and virus replication in chicken hematopoietic cell cultures infected with avian myeloblastosis virus (BAI-0A). **18295**
- Effect of bursectomy on the rous virus tumour induction in chickens. **18311**
- Alterations in the response and functions of the chicken pancreas induced by feeding unheated and autoclaved soybean meal. **18314**
- The penetration patterns of *Salmonella typhimurium* through the outer structures of chicken eggs. **18341**
- Note on the determination of carbaryl residues in hen skin. **18406**
- Morphological and physiological aspects of sporogony and oocyst viability in the protozoan parasites *Eimeria tenella* and *Eimeria stiedae* (Coccidia). **18419**
- CHICKS**
Relationships between zinc nutrition and alkaline phosphatase activity in the chick. **18220**
- On the Metacercaria of *Prosthogonimus putchkowskii* in *Sympetrum decoloratum* (Odonata: insecta) with observations on its development in chicks. **18370**
- CHLAMYDOSPORES**
Physiology of germination of chlamydosporos of *Phytophthora cinnamomi*. **18463**
- CHLORDANE**
Comparative life histories of chlordane-resistant and nonresistant German cockroaches. **17901**
- CHLORINATED HYDROCARBONS**
A review of drug toxicity in the cat. **18420**
- CHLORINE**
The effect of exposure to dieldrin on avoidance response extinction and conditioned heart rate in sheep. **18196**
- CHLOROBENZILATE**
Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. Ethyl 4,4'-Dichlorobenzilate. **18399**
- CHLOROFORM**
Plant growth regulations in *Ditylenchus dipsaci*, *Ditylenchus trifomis* and host tissues. **18437**
- CHLOROGENIC ACID**
A study on auxin and chlorogenic acid in leaf-roll resistant and susceptible potato varieties. **18032**
- CHLOROPIDAE**
Habitat selection by *Lipara lucens* Mg. (Diptera, Chloropidae) and its survival value. **17761**

SUBJECT INDEX

CHLORTETRACYCLINE

CHLORTETRACYCLINE

Qualitative identification of chlortetracycline and oxytetracycline in feeds.

18491

CHOLESTEROL

Influence of dietary vitamin A on cholesterol metabolism of chickens.

18185

CHROMATOGRAPHY

Factors influencing aflatoxin accumulation in peanut kernels and the associated mycoflora.

18043

Constituents of the cotton bud. XIII. Further studies on a nonpolar feeding stimulant for the boll weevil.

18124

Chemical control of nutsedge (*Cyperus rotundus* L.) and the metabolism of 3,6-dichloro-O-anisic acid (dicamba).

18169

Levels of 5 beta-pregnan-3 alpha, 6 alpha-diol-20-one in urine and its relationship to other metabolites of progesterone in urine of the non-pregnant domestic sow.

18189

Comparison of metabolites of progesterone-4-14C in urine from a nonpregnant domestic sow.

18190

Methyl mercury compounds in fish.

18199

A comparative study of cell wall glycopeptide structure of some bovine vibrios.

18247

Myoglobin in control and dystrophic chickens.

18250

Analytical problems: Mercury in the general environment.

18408

Plant growth regulations in *Ditylenchus dipsaci*, *Ditylenchus trifurcatus* and host tissues.

18437

Light stimulated biosynthesis of gibberellins in *Fusarium moniliforme*.

18462

Effect of 3-indoleacetic acid on phospholipid membrane components of *Avena coleoptiles*.

18481

Gas chromatographic detector for simultaneous sensing of phosphorus and sulfur-containing compounds by flame photometry.

18483

Plant hormones-V. Thin-layer and gas-liquid chromatography of the gibberellins; direct identification of the gibberellins in a crude plant extract by gas-liquid chromatography.

18485

CHROMOSOMES

Studies on selection in natural and experimental populations of *Drosophila pseudoobscura*.

17781

Oncogenesis in the (tu) y2v;vg strain of *Drosophila melanogaster*.

17787

A comparative study of salivary gland chromosome asynapsis in tumorigenic and closely related non-tumorigenic strains of *Drosophila melanogaster*.

17804

Ordered chromosomal DNA synthesis in *Drosophila melanogaster*.

17835

Salivary chromosome-like structure of a Coccid chromosome.

17903

Gamma-ray-induced mutations in *Drosophila melanogaster* oocytes: The phenomenon of dose rate.

17904

Mitotic chromosomes of *Glossina pallidipes* Austen.

17905

Tetraploid females in the hymenopteron, *Mormoniella*.

17906

Meiotic drive and visible polarity in *Drosophila* spermatocytes.

17909

Successful tissue transplantation of auxin-dependent tumours and some of its problems.

17935

Chromosomal alternations in pearl millet induced by gammarays.

18465

CIIRYSANTHEMUM

Tests with insecticides for the control of resistant *Myzus persicae* (Sulzer) on year-round chrysanthemums.

18095

CIIRYSOMELIDAE

On larvae of Hispinae (Coleoptera, Chrysomelidae) of the fauna of the USSR.

17759

CHYMOTRYPSIN

The influence of the host cell, ionic strength and chymotrypsin on foot-and-mouth disease virus electrophoretic mobility.

18345

CICAPELLIDAE

Transmission of a leafhopper-borne virus from naturally infected *Poa annua* in Czechoslovakia.

18039

Natural acquisition compared with mechanical inoculation of six-spotted leafhoppers for transmission of the oat blue dwarf virus. (Abstract).

18085

CIODRIN

Residues of diazinon, coumaphos, ciodrin, methoxychlor, and rotenone in cow's milk from treatments similar to those used for ectoparasite and fly control on dairy cattle, with notes on safety of diazinon and ciodrin to calves.

18403

CIRSIIUM ARVENSE

Metabolism of amitrole (3-amino-1,2,4-triazole) in relation to the differential susceptibility of *Cirsium arvense* (L.) scop. ecotypes.

18474

The effect of hormonal herbicides on the radical buds of *Cirsium arvense* scop.

18480

CISTUS

A new genus and species of the phytophagous mite (Bryobiidae, Acariformes).

17757

CITRUS

A sex pheromone from the citrus mealybug.

17828

Germination of immature and mature spores of *Diplodia natalensis*. (Abstract).

17960

Chemical control of scab and anthracnose on susceptible varieties of Citrus in Florida. (Abstract).

17981

The presence of tristeza virus in certain species of citrus in Cyprus.

18042

Introducing and establishing the noninclusion virus of the citrus red mite in citrus groves.

18117

Quantitative changes in organic acids in roots and leaves from grapefruit seedlings infected with *Rhadopholus similis*.

18138

The influence of an organic soil amendment on infectivity and reproduction of *Tylenchulus semipenetrans* on two citrus rootstocks.

18144

Inorganic composition and microscopy of citrus roots grown under several copper and soil amendment conditions.

18428

CLASSIFICATION

Basic biological characteristics of mycoplasma.

18277

CLAVICEPS PURPUREA

Phosphorus content during development of *Claviceps purpurea*.

18454

CLIMATE

Studies of the resistance of local apple varieties to scab (*Venturia inaequalis* (cke.) Wint.) under climatic conditions of Central Anatolia.

18073

Seasonal variation in the concentration of caesium-137 in grass and alfalfa.

18487

CLOACA

Duck plague.

18263

Pathological changes of acute Newcastle disease in an outbreak in Miyazaki Prefecture with special reference to those of the cloaca.

18268

CLOSTRIDIUM

Histidine decarboxylase in strains of *Escherichia coli* isolated from normal swine and swine with edema disease and enteric disorders.

18307

CLOSTRIDIUM BOTULINUM

Ecology of *Clostridium botulinum* type E.

18216

Estimation of radiation resistance values of microorganisms in food products.

18383

CLOSTRIDIUM PERFRINGENS

Clostridium perfringens type A infection of ligated intestinal loops in lambs.

18255

COBALT

Food intake and growth of burro foals after 250 roentgens of cobalt-60 whole-body gamma irradiation.

18271

COCCIDIOSIS

Field experiment with the anticoccidial dimethylalum.

18259

Successful treatment of coccidiosis in lambs.

18313

COCCOIDEA

On a tenth new *Sphaeroceraspis* of the central African forest (Hom. Coccoidea Diaspidini).

17740

COCHLIOMYIA HOMINIVORAX

Difference in response of two strains of screw-worm flies to the male pheromone.

17823

COCONUTS

Anatomic effects of cadang-cadang disease on coconuts.

17940

Reproduction of the coconut lethal yellowing syndrome by mechanical inoculation of young seedlings.

18049

COFFEE BERRY DISEASE

Ascospore production, discharge and infection by *Glomerella cingulata* causing coffee berry disease.

17999

COLD

Survival of *Rhopalosiphum padi* in stored grain during cold weather.

18097

COLEOPTERA

On the biology of several Trechinae and Sphodrinae. (Insecta, Coleoptera).

17808

COLIBACILLOSIS

Serologic response of swine to *Escherichia coli* antigens.

18273

COLLAR ROT (APPLES)

The role of IAA in host reaction to different isolates of *Phytophthora cactorum*. (Abstract).

17955

COLLETOTRICHUM GLOEOSPORIOIDES

Chemical control of scab and anthracnose on susceptible varieties of Citrus in Florida. (Abstract).

17981

SUBJECT INDEX

CRONARTIUM RIBICOLA

COLOR

Notes on microanalytical techniques in the analysis of foods for extraneous materials. 17792

Interception of apple maggot adults on colored traps in an orchard. 17860

Qualitative identification of chlortetracycline and oxytetracycline in feeds. 18491

COLORIMETRY

Notice of filing of petition regarding pesticide chemicals. kirk, j k. 18476

COMPETITION

Analysis of competition in model systems. (Abstract). 17949

Stimulation of *Sclerotium rolfsii* and its antagonists by volatile components of alfalfa hay. (Abstract). 18021

Interactions of *Aphelenchus avenae* and some nematode-trapping fungi in dual culture. 18134

COMPLEMENT FIXATION

Artificially induced immunity to enzootic abortion in ewes. 18246

CONDITIONED REFLEX

Pre-imaginal conditioning in *Drosophila*. 17858

CONIFERAEE

Parasitism of *Tylenchus emarginatus* on conifer seedling roots and some observations on the biology of the nematode. 18150

CONJUNCTIVITIS

The occurrence of bacteria in chronic purulent eye discharge. 18335

COOPERIA

Nematodiasis in Louisiana dairy cattle. Impact of host nutrition upon experimental ostertagiasis in the bovine. 18212

COPPER

Copper and ascorbic acid in guinea pig tissues as effected by dietary intake. 18290

The effect of diet on the utilization of stable and radioactive copper in ruminants. 18334

Inorganic composition and microscopy of citrus roots grown under several copper and soil amendment conditions. 18428

COPTOTERMES FORMOSANUS

Proposed federal Formosan termite quarantine safeguards. Buyer, seller. 18378

CORN

Genetics of reaction to *Puccinia sorghi* Schw. in ten corn inbred lines obtained from Africa and Europe. 17937

Relationship between free amino acids and symptom expression in corn infected with maize dwarf mosaic virus or sugarcane mosaic virus. (Abstract). 17982

Ultrastructure of *Zea mays* leaf cells infected with Johnson grass strain of sugarcane mosaic virus. (Abstract). 17986

Races of *Puccinia polysora* in Nigeria. 18015

Phytoalexin production in corn resistant to *Helminthosporium turcicum*. 18020

Resistance breakdown in maize to maize dwarf mosaic virus after treatment with atrazine. (Abstract). 18027

A leaf blight of corn (*Zea mays*) incited by *Fusarium moniliforme*. (Abstract). 18053

Preliminary studies on *Phyllachora maydis* affecting corn in Central America. (Abstract). 18054

Ultrastructure of host and parasite in compatible and incompatible interactions of *Zea mays* L. with *Puccinia sorghi* Schw. 18074

Genetics of reaction to *Puccinia sorghi* in ten corn inbred lines from Africa and Europe. 18076

Effects on populations of corn rootworms of aldrin residues in soil four years after application. 18087

A bioassay technique for screening feeding stimulants for larvae of tobacco budworm. 18096

Western corn rootworm egg distribution and adult emergence under two corn tillage systems. 18111

Weeds in agronomic crops. Field corn, soybeans. 18159

Vegetable crops. IV. Beans, sweet corn, tomatoes, rhubarb. 18173

The utilization of vitamin A and carotene by ruminants. 1. Vitamin A potency of carotenes in corn silage fed to lambs. 2. The effect of time and route of administration of vitamin A on liver vitamin A storage by steers. 3. The effect of route of administration of vitamin A on blood serum and liver vitamin A concentrations in steers at subsequent time intervals. 18281

Response of early-weaned pigs to amino acid supplementation of corn diets. 18391

Niagara NIA-10242 insecticide residues: Their persistence in coastal bermudagrass, corn, and silages, and their effect, fed in silage, on lactating cows. 18400

Active uptake of *Helminthosporium carbonum* toxin and its effect on CO₂ dark fixation by corn. (Abstract). 18453

Effect of 3-indoleacetic acid on phospholipid membrane components of *Avena coleoptiles*. 18481

CORRELATION

Method for estimating intensity of the little leaf disease of brinjal (*Solanum melongena*). 17917

Seminal vesiculitis syndrome: Lesions in genital organs of young bulls. 18208

Growth and development of the bovine as related to certain endocrine factors. 18234

CORTHYLUS COLUMBIANUS

The Columbian timber beetle, *Corthylus columbianus* (Coleoptera: Scolytidae). VIII. Artifacts and characteristics of the host tree. 18129

CORYNEBACTERIUM EQUI

Corynebacterium equi infection in two foals. 18225

CORYNEBACTERIUM MICHIGANENSE

Bacterial canker of tomato; inoculum level needed for infection. 18071

COSTELYTRA ZEALANDICA

Costelytra zealandica (White) sex attraction. 17845

COTTON

Spread of the boll weevil by drainage water and air currents. 17824

Race buildup of *Xanthomonas malvacearum* on cotton in southeast Missouri. 17928

Evaluation of systemic fungicides and insecticides for the control of cotton boll rot in vitro. (Abstract). 17943

Morphology and longevity of *Verticillium albo-atrum* in cotton leaves. (Abstract). 17957

Effectiveness of specific genes and gene combinations in conferring resistance to races of *Xanthomonas malvacearum* in Upland cotton. (Abstract). 17978

The role of cotton and bean seed exudate in pre-emergence infection by *Rhizoctonia solani*. 17994

Effects of early-, mid-, and late-season infestations of two-spotted spider mites on the yield of cotton. 18094

A bioassay technique for screening feeding stimulants for larvae of tobacco budworm. 18096

Occurrence of fiber containing fluorescent spots associated with *Aspergillus flavus* boll rot in the U. S. cotton crop of 1967. 18108

Studies on hydrogen phosphide against the red flour beetle in a column of paddy. 18113

Constituents of the cotton bud. XIII. Further studies on a nonpolar feeding stimulant for the boll weevil. 18124

Thread worms in the rhizosphere of the normal cotton and of that infected with the verticillous cotton wilt. 18149

The effect of environmental and biological factors on the persistence of malathion applied in low volume technical and emulsifiable concentrate forms to cotton plants. 18386

Effect of defoliant on carbohydrate and nitrogen metabolism in cotton plant leaves. 18448

Comparison of the effects of gibberellic acid and aflatoxin in germinating seeds. 18449

COTTONSEED

Notice of filing of petition regarding pesticide chemicals. kirk, j k. 18476

COTTONSEED MEAL

Effects of high gossypol cottonseed meal on the electrocardiogram of swine. 18179

COUMAPHOS

Horn fly control with coumaphos. 18349

Residues of diazinon, coumaphos, ciadrin, methoxychlor, and rotenone in cow's milk from treatments similar to those used for ectoparasite and fly control on dairy cattle, with notes on safety of diazinon and ciadrin to calves. 18403

CRANBERRIES

Incidence and pathogenicity of fungi found on cranberry in Wisconsin. 17984

CRICONEMOIDES

Control of endo- and ecto-parasitic nematodes in turf by hot-water treatments. 18139

CRONARTIUM FUSIFORME

Genetic variation in susceptibility to fusiform rust in a wild population of loblolly pine. (Abstract). 18010

The pathogenicity of secondary and tertiary basidiospores of *Cronartium fusiforme*. 18052

CRONARTIUM RIBICOLA

Helicopter application of phytoactin to whitebark pine. (Abstract). 17958

SUBJECT INDEX

CROP ROTATION

Comparative physiology of *Pinus monticola* Dougl. resistant and susceptible to *Cronartium ribicola* J. C. Fisch. ex. Rabenh. 18000

Concentrations of solutes in blister rust infections of western white pine (Abstract). 18030

CROP ROTATION

The influence of crop-rotation on the attack of carrots by *Meloidogyne hapla* Chitw. and symptom formation. 18068

CROP YIELDS

Evaluation of nematocides for controlling reniform nematodes on sweetpotatoes. 17918

Effect of soil fungicides on development of fungi in soil and on kernels of groundnut. 18003

Chemical control of corn head smut. 18062

Effects on populations of corn rootworms of aldrin residues in soil four years after application. 18087

Further evaluation of acaricides for brown wheat mite control on winter wheat in Kansas, 1963-65. 18091

Effects of early-, mid-, and late-season infestations of two-spotted spider mites on the yield of cotton. 18094

Insect pests of Nigerian crops. 18105

Control of mustard aphid (*Lipaphis erysimi* Kalt.) by systemic insecticides. 18115

The yield of potatoes resistant to *Heterodera rostochiensis* on infested land. 18140

Preplanting treatments for weed control in Connecticut shadegrown tobacco. 18157

Weeds in agronomic crops. Field corn, soybeans. 18159

Organisation of anti-rat campaigns. 18177

CROPS

Development of parthenocarpic and non-parthenocarpic syconia of *Ficus carica* L. cv. King in relation to endogenous and exogenous growth regulators. 17927

Fencerow weed control made easy. 18165

Forage crops, small grains. 18167

Determination of cesium-137 and related sampling problems of dairy cattle feeds, 1962-1967. 18197

CROWN GALLS

Successful tissue transplantation of auxin-dependent tumours and some of its problems. 17935

Soil fumigants tested for control of crown gall. 17973

CROWN GALLS (BEANS)

Auxin and crown gall tumor initiation. (Abstract). 18023

CROWN RUST (OATS)

Effect of moderate adult resistance on penetration, hyphal growth rates, and urediospore production by crown rust of oats. (Abstract). 17995

CRUCIFERAE

Isolation and properties of *Plasmiodiophora brassicae* plasmodia from infected crucifer tissues and tissue culture callus. (Abstract). 18008

Induction of floral hypersexuality in *Iberis amara* L. (Cruciferae) influenced by 2,4-dichlorophenoxyacetic acid. 18446

CRYPTOLESTES FERRUGINEUS

Pyrethrins-piperonyl butoxide applied as a fog in an empty grain bin. 17897

CUCUMBERS

Vegetable crops III. Cucumbers, watermelons, cantaloupes, squash. 18168

CULEX

New species of *Culex* (Melanoconion). 17756

CULEX PIPIENS QUINQUEFASCIATUS

Preliminary observations on the effect of alcohol and oil films on the oviposition of *Culex pipiens quinquefasciatus* (Say). 17844

CULEX PORTESI

Laboratory rearing of *Culex* (Melanoconion) portesi Senevet and Abonnenc. 17888

CULICIDAE

A preliminary report of the mosquitoes in the Gilgit Agency area. 17772

Studies of the epidemiology of arthropod-borne virus infections at Mitchell River Mission, Cape York Peninsula, north Queensland. II. Arbovirus infections of mosquitoes, man, and domestic fowls, 1963-1966. 17910

Special equipment in the Box Elder County Mosquito and Fly Abatement District. 17911

Cattle-mosquito study begins in south Texas. 18352

CULICOIDES

Sensillae on the antennae of blood-sucking biting midges (Diptera, Ceratopogonidae). 17880

Culicoides control in the Canal Zone by water management. 17912

Bluetongue of sheep and cattle: past, present, and future. 18217

CULTURAL CONTROL (INSECTS)

A simplified field cage for trapping pink bull-worm adults. 17819

CULTURE MEDIA

The multiplication of Middelburgs and I plaque viruses in *Aedes aegypti* mosquitoes. 17735

Accumulation of glycine in the fat body of the silkworm, *Bombyx mori* L. 17803

Sub-units of acid phosphatase-1 in *Drosophila melanogaster*: Reversible dissociation in vitro. 17862

Growth of arboviruses in monolayers from sub-cultured mosquito embryo cells. 17870

Development of parthenocarpic and non-parthenocarpic syconia of *Ficus carica* L. cv. King in relation to endogenous and exogenous growth regulators. 17927

Successful tissue transplantation of auxin-dependent tumours and some of its problems. 17935

Patch canker of *Hevea brasiliensis* caused by *Phytophthora palmivora*. 17967

The suppression of actinomycetes by PCNB in culture media used for enumerating soil bacteria. 17980

Tobacco necrosis virus and its satellite virus. 18007

Cytochrome oxidase and mitochondrial protein in extracts of leaves of *Nicotiana glutinosa* L. infected with tobacco mosaic virus. 18045

Tomato bushy stunt virus on tomato crops in Argentina. 18047

A comparative nutritional study of *Alternaria raphani*, *A. brassicae*, and *A. brassicola* with special reference to *A. raphani*. 18069

Cultural and pathogenicity studies of induced variants of bean and pea root rot *Fusarium* species. 18078

Interactions of *Aphelenchus avenae* and some nematode-trapping fungi in dual culture. 18134

Avirulent mutant of a strain of ornithosis agent obtained by gamma irradiation. 18195

Corynebacterium equi infection in two foals. 18225

Characterization studies on feline panleucopenia virus. (with). II. Pathogenesis in the host. 18233

Isolation and characterization of three plaque-type clones of the hickman strain of Newcastle disease virus. 18235

Behavior of equine infectious anemia virus in cell culture and development of a diagnostic test for the disease. 18240

Clostridium perfringens type A infection of ligated intestinal loops in lambs. 18255

Liver granulomas of turkeys caustive agents and mechanism of infection. 18294

Effects of genetic cellular resistance on cell transformation and virus replication in chicken hematopoietic cell cultures infected with avian myeloblastosis virus (BAI-0A). 18295

Isolation of a new toxin from cultures of *Aspergillus flavus*. 18416

Effect of culture filtrates of *Pseudomonas phaseolicola* on the growth of excised roots and callus tissue cultures of bean. (Abstract). 18422

Auxin effects on the activity of pectin-transeliminase in vitro. 18430

Effect of fungal estrogen F-2 on the production of perithecia by *Fusarium roseum* Graminearum'. (Abstract). 18442

Electron micrographs of *Rhizopus stolonifer* sporangiospores subjected to chilling. (Abstract). 18458

Light stimulated biosynthesis of gibberellins in *Fusarium moniliforme*. 18462

Auxin-induced elimination of a protein in bean hypocotyl. 18470

Metabolism of amitrole (3-amino-1,2,4-triazole) in relation to the differential susceptibility of *Cirsium arvense* (L.) Scop. ecotypes. 18474

CURCULIONIDAE

Ecological characteristics of the diapause of the *Phytonome* of the Luzerne *Hypera variabilis*. (Col. Curculionidae). 17817

CURLY TOP (BEETS)

Alterations in the auxin levels of resistant and susceptible hosts induced by the curly top virus. 18066

CURLY TOP (SUGAR BEETS)

Relationship of ethylene to curly top symptoms. (Abstract). 17988

CURLY TOP (TOMATOES)

Alterations in the auxin levels of resistant and susceptible hosts induced by the curly top virus. 18066

CURVULARIA GENICULATA

Mycetoma in a dog. 18221

SUBJECT INDEX

DEOXYRIBONUCLEIC ACID

- CUTICLE**
The formation of the cuticular ridges in the larval pharynx of the blowfly (*Calliphora vicina* R.-D.). 17809
The molting behavior of the black widow spider, *Latrodectus mactans*. 17830
The penetration patterns of *Salmonella typhimurium* through the outer structures of chicken eggs. 18341
- CYANOPHYTA**
Toxic blue-green algae in Saskatchewan. 18414
- CYCLODIENE**
Residues of diazinon in carrots after treatment against cycloidiene-resistant carrot rust fly. 18093
- CYCLOHEXIMIDE THIOSEMICARBAZONE**
Systemic-chemical paints for the control of *Cytospora* canker disease in prune trees. 17996
- CYLINDROCLADIUM SCOPARIUM**
Factors affecting the infection of black spruce (*Picea mariana* Mill.) transplants by *Cylindrocladium scoparium*. 18056
- CYNODON DACTYLON**
Resistance in bermudagrass to the fall armyworm. 18104
Niagara NIA-10242 insecticide residues: Their persistence in coastal bermudagrass, corn, and silages, and their effect, fed in silage, on lactating cows. 18400
- CYPERUS ROTUNDUS**
Chemical control of nutsedge (*Cyperus rotundus* L.) and the metabolism of 3,6-dichloro-O-anisic acid (dicamba). 18169
- CYSTICERCUS**
Helminthic infestations of piglets with reference to lesions encountered. 18371
- CYSTS**
On the development of *Cysticercus fasciolaris* in albino rat liver and its reaction on the host tissue. 18381
- CYTOCHROME OXIDASE**
Cytochrome oxidase and mitochondrial protein in extracts of leaves of *Nicotiana glutinosa* L. Infected with tobacco mosaic virus. 18045
- CYTOGENETICS**
Correction: Hemophilia-like disease of swine: Cytogenetic studies. 18181
- CYTOLOGY**
Ordered chromosomal DNA synthesis in *Drosophila melanogaster*. 17835
Tetraploid females in the hymenopteron, *Mormoniella*. 17906
Meiotic drive and visible polarity in *Drosophila* spermatocytes. 17909
Mitotic recombination in conidiophores of *verticillium albo-atrum*. 17922
Hemophilia-like disease of swine: Cytogenetic studies. 18223
Avian adeno-like viruses- Characterization and comparison of seven isolates. 18224
Characterization of bovine viral diarrhea viruses by their interactions with susceptible host cells. 18243
Mitochondrial involvement in the host-parasite relationship. 18305
- An electron microscope study of the tegument and associated structures of the proceroid of *Diphyllbothrium latum* (L.). 18355
The fine structure of the tegument of *Diphyllbothrium latum* (L.). A comparison of the proceroid and adult stages. 18356
- CYTOPATHOLOGY**
Some factors affecting interferon production by foot-and-mouth disease virus in bovine tissue cultures. 18316
Interference between modified and virulent strains of foot-and-mouth disease virus. 18317
- CYTOPLASM**
The formation of the cuticular ridges in the larval pharynx of the blowfly (*Calliphora vicina* R.-D.). 17809
Meiotic drive and visible polarity in *Drosophila* spermatocytes. 17909
Occurrence of Agrophron mosaic virus in Montana. 18058
Lack of cytoplasmic inheritance of alfalfa resistance to the spotted alfalfa aphid. 18099
Copper and ascorbic acid in guinea pig tissues as effected by dietary intake. 18290
On the development of *Cysticercus fasciolaris* in albino rat liver and its reaction on the host tissue. 18381
Effect of ration modifications on aflatoxicosis in the rat. 18382
- CYTOSPORA CHRYSOSPERMA**
Susceptibility of weakened cottonwood stems to fungi associated with blackstem. 18055
- CYTOSPORA CINCTA**
Systemic-chemical paints for the control of *Cytospora* canker disease in prune trees. 17996
- D, 2,4-**
Fencerow weed control made easy. 18165
Extermination of *Eichhornia azurea* Kunth, Aguape de cordao, on the Ribeira river by means of herbicide applications. 18166
Induction of floral hypersexuality in *Iberis amara* L. (Cruciferae) influenced by 2,4-dichlorophenoxyacetic acid. 18446
- DAIRY CATTLE**
The effect of intramammary infection during the dry period on the milk production of the affected quarter at the start of the succeeding lactation. 18194
Determination of cesium-137 and related sampling problems of dairy cattle feeds, 1962-1967. 18197
Cystic ovarian disease in dairy cattle: With special reference to its treatment using a combination of Chorionic gonadotrophin and progesterone. 18200
Factors affecting the storage, excretion, and placental transfer of dieldrin in dairy cattle. 18218
Acute infectious bovine rhinotracheitis and salmonellosis in a dairy herd. 18344
Residues of diazinon, coumaphos, ciodrin, methoxychlor, and rotenone in cow's milk from treatments similar to those used for ectoparasite and fly control on dairy cattle, with notes on safety of diazinon and ciodrin to calves. 18403
Pyrrolizidine alkaloid poisoning in calves. 18412
- DECOMPOSITION**
The effect of decomposing organic matter on zinc level in soil and plants. 18061
Insecticide residues in pest control. 18401
Effect of defoliant on carbohydrate and nitrogen metabolism in cotton plant leaves. 18448
Studies on the fungitoxicity of captan. Vi. Decomposition of 35S-labelled captan by *Neurospora crassa* conidia. 18469
- DEER**
Electron microscopy of bovine papilloma and deer fibroma viruses. 18328
Experimental bluetongue disease in white-tailed deer. 18336
Some studies on the pathogenesis and epizootiology of epizootic hemorrhagic disease of deer. 18340
- DEFICIENCY DISEASES**
Relationships between zinc nutrition and alkaline phosphatase activity in the chick. 18220
Histopathological aids to the diagnosis of certain poultry diseases. 18284
Copper and ascorbic acid in guinea pig tissues as effected by dietary intake. 18290
- DEFOLIANTS**
Effect of desiccation on survival of the free-living stages of *Trichostrongylus colubriformis*. 18353
Effect of defoliant on carbohydrate and nitrogen metabolism in cotton plant leaves. 18448
- DEGRADATION**
Effect of rutin and its degradation products on *Fusarium* root rot of bean. (Abstract). 18019
- DEHYDROGENASES**
Drosophila alcohol dehydrogenase isozymes: identity of molecular size. 17838
- DELADENUS**
Parasitic and free-living cycles in entomogenous nematodes of the genus *Deladenus*. 17731
- DELPHACIDAE**
Bionomics, enemies and population dynamics of *Javesella pellucida* (F.) (Hom., Delphacidae). 17875
- DENDROCTONUS TEREBRANS**
Attack of the black turpentine beetle on roots of slash pines. 18118
- DENSITY**
Electron optical and buoyant density studies of hog cholera virus. 18285
Biochemical and biophysical properties of canine distemper virus. 18306
- DEOXYRIBONUCLEIC ACID**
Tests of genetic systems for the study of the effects of dNA in *Drosophila melanogaster*. 17811
Ordered chromosomal DNA synthesis in *Drosophila melanogaster*. 17835
Nucleoprotein synthesis during metamorphosis in *Drosophila virilis*. 17872
Degradation of cellular ribonucleic acid in Newcastle disease virus infected cells. 18258
Changes in protein and nucleic acid metabolism in baby hamster kidney cells infected with foot-and-mouth disease virus. 18308

SUBJECT INDEX

DETERGENTS

Morphological and physiological aspects of sporogony and oocyst viability in the protozoan parasites *Eimeria tenella* and *Eimeria stiedae* (Coccidia). 18419

Comparison of the effects of gibberellic acid and aflatoxin in germinating seeds. 18449

Wound-induced gibberellins. 18467

DETERGENTS

Detergents. 18387

Effects on groundwater. Municipal sources. 18390

Water pollution. Effects of pollution on fish life. General aspects of water pollution biology. 18395

DEUTEROPHOMA TRACHEIPHILA

Fungistatic constituents in citrus varieties resistant to the mal-secco disease. 18046

DIABROTICA LONGICORNIS

Temperature relationships of the development of northern corn rootworm eggs. 17802

Effects on populations of corn rootworms of aldrin residues in soil four years after application. 18087

DIABROTICA UNDECIMPUNCTATA HOWARD

Systematic insecticide seed treatment tests on soybeans. bowling, c c. 18082

DIABROTICA VIRGIFERA

Comparison of application rates of some soil insecticides for control of western corn rootworm larvae in Missouri. 17866

Effects on populations of corn rootworms of aldrin residues in soil four years after application. 18087

Oviposition preferences of western corn rootworms for various soil surface conditions. 18100

Western corn rootworm egg distribution and adult emergence under two corn tillage systems. 18111

DIAGNOSIS

Successful tissue transplantation of auxin-dependent tumours and some of its problems. 17935

Effect of organo-Phosphorus insecticides on the warm blooded animals and cure thereof. 18193

Ecologic aspects of listeriosis. 18214

Behavior of equine infectious anemia virus in cell culture and development of a diagnostic test for the disease. 18240

A collective outbreak of transmissible gastroenteritis in swine. III. Isolation of a virus with cytopathogenic effect and its properties. 18241

Survival of salmonella, viable bacterial count and appearance of contamination-indicating organisms in Salmonella-positive feedstuff. 18253

Increased incidence of avian leukosis in response to excess vitamin A. 18280

Histopathological aids to the diagnosis of certain poultry diseases. 18284

A fluorescent micro-plaque assay for hog cholera virus. Localization of infection with homologous antiserum. 18291

Age susceptibility and excretion of Salmonella typhimurium in calves. 18312

Enzootic rabies in rodents in Thailand. 18320

What veterinarians can do about the salmonella problem. 18321

Improved techniques for the detection of foot-and-mouth disease virus in carrier cattle. 18325

Detection of antibiotic-fast staphylococci in otitis externa in dogs. 18346

Diagnosis, treatment, and preventive therapy for heartworms. 18361

DIAPAUSE

Ecological characteristics of the diapause of the Phytonome of the Luzerne *Hypera variabilis*. (Col. Curculionidae). 17817

DIASPIS ECHINOCACTI

With pests in the luggage. 18126

DIATRAEA SACCHARALIS

Mortality staging of dominant lethals induced in the F1 generation of sugarcane borer; *Diatraea saccharalis* (F.). 18127

DIAZINON

Residues of diazinon in carrots after treatment against cyclodiene-resistant carrot rust fly. 18093

Degradation of diazinon by synergistic microbial action. 18384

Residues of diazinon, coumaphos, cioldrin, methoxychlor, and rotenone in cow's milk from treatments similar to those used for ectoparasite and fly control on dairy cattle, with notes on safety of diazinon and cioldrin to calves. 18403

DICAMBA

Chemical control of nutsedge (*Cyperus rotundus* L.) and the metabolism of 3,6-dichloro-O-anisic acid (dicamba). 18169

DICHLORVOS

Some physiological responses of ruminants to 2,2-dichlorovinyl dimethyl phosphate. 18219

Treatment of Strongyloides ransomi infection of pigs with Thiabendazole and Dichlorvos. 18275

DIEBACK (ULMUS)

Effect of control programs on development of epidemics of Dutch elm disease. (Abstract). 18034

DIELDRIN

The effect of exposure to dieldrin on avoidance response extinction and conditioned heart rate in sheep. 18196

Factors affecting the storage, excretion, and placental transfer of dieldrin in dairy cattle. 18218

Isolation and purification of metabolites found in the urine of male rats fed aldrin and dieldrin. 18379

DIET

Further studies on the effect of bovine diet on face fly development. 17766

A study of the nuclear polyhedrosis virus on the beet armyworm, *Spodoptera exigua* (Hubner), with emphasis on stability, pathogenicity and histopathology. 17837

Effects of mold inhibitors in larval diet on the biology of the cabbage looper. 17847

A possible marker for european corn borer moths. 17882

Some aspects of isoleucine metabolism in the yellow fever mosquito, *Aedes aegypti* (L.). 17891

Physiological genetics of melanotic tumors in *Drosophila melanogaster*. V. Amino acid metabolism and tumor formation in the tu bw; st su-tu strain. 17902

Influence of dietary vitamin A on cholesterol metabolism of chickens. 18185

Relationships between zinc nutrition and alkaline phosphatase activity in the chick. 18220

Some nutritional aspects of dietary magnesium in ruminants and poultry. 18227

Effects of a low manganese diet on certain ovine characteristics. 18274

The utilization of vitamin A and carotene by ruminants. 1. Vitamin A potency of carotenes in corn silage fed to lambs. 2. The effect of time and route of administration of vitamin A on liver vitamin A storage by steers. 3. The effect of route of administration of vitamin A on blood serum and liver vitamin A concentrations in steers at subsequent time intervals. 18281

Copper and ascorbic acid in guinea pig tissues as effected by dietary intake. 18290

The effect of diet on the utilization of stable and radioactive copper in ruminants. 18334

DIGESTION

Electrophoretic variation of proteinase in the digestive juice of the silkworm, *Bombyx mori* L. 17815

The directions of the flow of food in the alimentary tract of the leafhopper *Euscelidius variegatus* KBM. (Jassidae). 17865

DIHYDRO-2,2-DIMETHYL-7-BENZOFURANYLMETHYLCARBAMATE, 2,3-

Niagara NIA-10242 insecticide residues: Their persistence in coastal bermudagrass, corn, and silages, and their effect, fed in silage, on lactating cows. 18400

DIMETHYALUM

Field experiment with the anticoccidial dimethylalum. 18259

DIMETHYL SULFOXIDE

Systemic-chemical paints for the control of Cytospora canker disease in prune trees. 17996

Note on the determination of carbaryl residues in hen skin. 18406

DIPETALONEMA RECONDITUM

Epizootiologic observations of canine filariasis in Georgia. 18330

DIPHYLLOTHRIUM LATUM

An electron microscope study of the tegument and associated structures of the procercoid of *Dipyllobothrium latum* (L.). 18355

The fine structure of the tegument of *Dipyllobothrium latum* (L.). A comparison of the plerocercoid and adult stages. 18356

DIPLODIA NATALENSIS

Germination of immature and mature spores of *Diplodia natalensis*. (Abstract). 17960

DIPLOPODA

Data on the endocrine system of several Diplopoda, Oniscomorphes (Myriapoda). 17841

DIPTERA

Insects affecting seed production of Shortleaf pine in the Georgia piedmont. 17748

On Diptera in small mammal burrows in northern Europe and southern Spain. 17750

SUBJECT INDEX

DROSOPHILIDAE

- Siphona kangwagyei* n. sp., a blood sucking fly from Uganda (Diptera: Muscidae). 17776
- Tyrosine metabolism and its hormonal control after eclosion in the adult fleshfly *Sarcophaga bullata* Parker (Diptera: Sarcophagidae). 17879
- Special equipment in the Box Elder County Mosquito and Fly Abatement District. 17911
- DIROFILARIA IMMITIS**
- Longevity of an experimental infection with *Dirofilaria immitis* in a dog. 18297
- Epizootologic observations of canine filariasis in Georgia. 18330
- Diagnosis, treatment, and preventive therapy for heartworms. 18361
- Dirofilaria immitis* parasitic in the spinal cavity of a dog. 18362
- DISSECTION**
- Egg and larval development of *Cardiochiles nigriceps*. 17855
- DISTILLATION**
- Low temperature irradiation applied to neutron activation analysis of mercury in human whole blood. 18484
- DISTILLED WATER**
- Conditions for infection of celery by *Septoria apiicola*. 18059
- DISULFOTON**
- Control of the birch leaf minor with disulfoton. 18086
- DITYLENCHUS DESTRUCTOR**
- Evaluation of some taxonomic indices in the potato rot nematode *Ditylenchus destructor* Thorne, 1945. 18151
- DITYLENCHUS DIPSACI**
- The increased attack of *Ditylenchus dipsaci* on onion caused by some fungicides. 18132
- Chemical control of the stem nematode *Ditylenchus dipsaci*. 18137
- Evaluation of some taxonomic indices in the potato rot nematode *Ditylenchus destructor* Thorne, 1945. 18151
- Plant growth regulations in *Ditylenchus dipsaci*, *Ditylenchus trifurcatus* and host tissues. 18437
- DITYLENCHUS TRIFORMIS**
- Plant growth regulations in *Ditylenchus dipsaci*, *Ditylenchus trifurcatus* and host tissues. 18437
- DIURNAL RHYTHM**
- Circadian emergence rhythm of a tropical scolytid, *Xyleborus ferrugineus*. 17767
- Endogenous diurnal rhythm of pupation in a mosquito population. 17868
- On periodicity of gas exchange in ontogenesis of the Colorado beetle (*Leptinotarsa decemlineata* Say.). 17892
- DIURON**
- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. Diuron. 18396
- DODECYL SODIUM SULFATE**
- Location of unique sequences in tobacco mosaic virus ribonucleic acid. 18457
- DOGS**
- Treatment for poisoning by slug bait. 18187
- Mycetoma* in a dog. 18221
- One-year immunity in dogs vaccinated with high egg-passage rabies virus grown on established dog kidney cell line. 18222
- Water, electrolyte, and acid-base alterations in experimental canine leptospirosis. 18244
- Strychnine levels in tissues and stomach contents of poisoned dogs: An eleven year survey. 18254
- The significance of the stay of *Necator americanus* larvae in the puppy lung on their further development. 18283
- Longevity of an experimental infection with *Dirofilaria immitis* in a dog. 18297
- Transmission of salmon poisoning disease to dogs by *Nanophyetus salmincola* eggs. 18301
- Experimental transmission of two canine neoplasms: Lymphosarcoma and mast cell leukemia. 18310
- Serologic survey for toxoplasma antibodies in a colony of research dogs and cats in California. 18323
- Epizootologic observations of canine filariasis in Georgia. 18330
- The occurrence of bacteria in chronic purulent eye discharge. 18335
- Detection of antibiotic-fast staphylococci in otitis externa in dogs. 18346
- Diagnosis, treatment, and preventive therapy for heartworms. 18361
- Dirofilaria immitis* parasitic in the spinal cavity of a dog. 18362
- Studies on parasitic granuloma in the dog. 18365
- Lesions caused by the hepatic trematode, *Metrostichus conjunctus*, Cobbold, 1860; A comparative study in Carnivora. 18369
- DOSAGE**
- Reproductive behavior of the potato tuberworm, *Phthorimaea operculella* (Zeller), (Lepidoptera: Gelechiidae) and the effect of the chemosterilant metepa. 17836
- Effect of the chemosterilant metepa on the housefly, *Musca domestica* L. 17848
- Gamma-ray-induced mutations in *Drosophila melanogaster* oocytes: The phenomenon of dose rate. 17904
- Control of the birch leaf minor with disulfoton. 18086
- Residues of diazinon in carrots after treatment against cyclodiene-resistant carrot rust fly. 18093
- The tolerance of imported commodities to fumigation with methyl bromide. 18112
- Studies on hydrogen phosphide against the red flour beetle in a column of paddy. 18113
- Control of the elm leaf beetle in Arizona. 18128
- Some physiological responses of ruminants to 2,2-dichlorovinyl dimethyl phosphate. 18219
- Relationship between infecting dose, muscle parasitism, and antibody response in experimental trichinosis in rabbits. 18329
- Estimation of radiation resistance values of microorganisms in food products. 18383
- DRAINAGE**
- Spread of the boll weevil by drainage water and air currents. 17824
- DRAINAGE DITCHES**
- Special equipment in the Box Elder County Mosquito and Fly Abatement District. 17911
- Culicoides control in the Canal Zone by water management. 17912
- DROSOPHILA**
- Drosophila* alcohol dehydrogenase isozymes: identity of molecular size. 17838
- DROSOPHILA MELANOGASTER**
- Oncogenesis in the (tu) y2v;vg strain of *Drosophila melanogaster*. 17787
- Content and synthesis of gamma aminobutyric acid in the larval brain of *Drosophila melanogaster*. 17799
- A comparative study of salivary gland chromosome asynapsis in tumorigenic and closely related non-tumorigenic strains of *Drosophila melanogaster*. 17804
- Tests of genetic systems for the study of the effects of dNA in *Drosophila melanogaster*. 17811
- Ordered chromosomal DNA synthesis in *Drosophila melanogaster*. 17835
- Sub-units of acid phosphatase-I in *Drosophila melanogaster*: Reversible dissociation in vitro. 17862
- Physiological genetics of melanotic tumors in *Drosophila melanogaster*. V. Amino acid metabolism and tumor formation in the tu bw; st su-tu strain. 17902
- Gamma-ray-induced mutations in *Drosophila melanogaster* oocytes: The phenomenon of dose rate. 17904
- Actinomycin D-induced phenocopies in *Drosophila melanogaster* and their relevance to differential gene transcription. The genetic basis of actinomycin D-induced preferential killing of *Drosophila melanogaster* males. 17907
- Developmental characteristics of five lethal mutants of *Drosophila melanogaster*. 17908
- DROSOPHILA PSEUDOOBSCURA**
- Studies on selection in natural and experimental populations of *Drosophila pseudoobscura*. 17781
- DROSOPHILA VIRILIS**
- Analysis of the development of oviducts and the developmental relations between oviducts and ovaries in *Drosophila virilis*. Part one: Development of oviducts under normal and experimental conditions. Part two: Analysis of alterations occurring in oviducts during imaginal life. 17782
- Nucleoprotein synthesis during metamorphosis in *Drosophila virilis*. 17872
- DROSOPHILIDAE**
- Polygenic control of aldehyde oxidase and xanthine dehydrogenase in *Drosophila*. 17807
- Pre-imaginal conditioning in *Drosophila*. 17858
- Meiotic drive and visible polarity in *Drosophila* spermatocytes. 17909

SUBJECT INDEX

DRUG THERAPY

DRUG THERAPY

Effect of the chemosterilant metepa on the housefly, *Musca domestica* L. 17848

Medicated feeds; approval of new drug applications. 18270

Experimental studies in mice on the therapy of trichinellosis (Thiabendazole, Neguvon, cortisone, azulen, sera). 18366

Anthelmintic activity of some carbamate derivatives. 18374

A review of drug toxicity in the cat. 18420

Swedish restrictions concerning the use of mercury compounds for seed disinfection. 18441

The organization and activities of the Bureau of Veterinary Medicine, Food and Drug Administration. 18496

DRUGS

Experimental treatment of subclinical porcine case of *Toxoplasma* with sulfamonomethoxine and pyrimethamine and its influence upon hemagglutinating antibody. 18202

Medicated feeds; approval of new drug applications. 18270

Changes in the efficacy of three anthelmintics during the maturation of a nematode (*Trichinella spiralis*). 18357

DUCKLINGS

Effect of aflatoxin on serum protein fractions of day-old ducklings. 18191

DUCKS

Duck plague. 18263

DUSTING

Techniques of marking insects with micronized fluorescent dust with especial emphasis on marking millions of *Lygus hesperus* for dispersal studies. 17886

DUSTING EQUIPMENT

Organisation of anti-rat campaigns. 18177

DWARF MOSAIC (CORN)

Relationship between free amino acids and symptom expression in corn infected with maize dwarf mosaic virus or sugarcane mosaic virus. (Abstract). 17982

Resistance breakdown in maize to maize dwarf mosaic virus after treatment with atrazine. (Abstract). 18027

DYES

A red dye to evaluate bait formulations and to mass mark field populations of boll weevils. 17856

Vital staining of insect eggs by incorporation of trypan blue. 17878

ECHINOCOCCOSIS

Hydatid latex agglutination with scolex and crude polysaccharide antigens. 18360

ECOLOGY

Biological and ecological studies on *Caloglyphus* mite (Acarina: Acaridae) associated with Scarabaeidae. 17743

Information concerning the African bark and nut beetles fauna (Coleoptera: Scolytidae and Platypodidae). 17762

The biology and ecology of *Fusarium oxysporum* f. melonis in soil and the root zones of host and nonhost plants. 17944

Ecology and possible significance of *Perithecium* of *Calonectria nivalis* in the Pacific Northwest. 17971

Biological and ecological relationships of the fungus, *Entomophthora coronata* (Costantin) Kevorkian and the garden symphylan, *Scutigera immaculata* (Newport). 18012

The host-parasite relations and ecology of *Trichodorus viruliferus* on apple roots, as observed from an underground laboratory. 18145

The relationships between population increase and population density in plant parasitic nematodes. 18148

Ecology of *Clostridium botulinum* type E. 18216

Effects on microfauna - freshwater. 18394

ECONOMIC PLANTS

Spider populations in grain sorghums. 17784

Resistance of southern peas to the cowpea curculio. 18125

ECONOMICS

New Zealand Noctuidae (Lepidoptera): Summary of known host plants and a bibliography relevant to the biology of the group. 17749

Ascospore production, discharge and infection by *Glomerella cingulata* causing coffee berry disease. 17999

EDEMA

Histidine decarboxylase in strains of *Escherichia coli* isolated from normal swine and swine with edema disease and enteric disorders. 18307

EGGPLANT

Method for estimating intensity of the little leaf disease of brinjal (*Solanum melongena*). 17917

A new mosaic disease of brinjal (*Solanum melongena* L.). 18116

Injury to *Heterodera tabacum* by high soil temperatures. (Abstract). 18143

EGGS

Egg and larval development of *Cardiophiles nigricaps*. 17855

Influence of dietary vitamin A on cholesterol metabolism of chickens. 18185

Establishment of the pathological relationship between plant and animal isolates of *Geotrichum candidum*, in embryonated chicken eggs. 18239

Treatment of *Strongyloides ransomi* infection of pigs with Thiabendazole and Dichlorvos. 18275

The penetration patterns of *Salmonella typhimurium* through the outer structures of chicken eggs. 18341

EICHHORNIA

Extirmination of *Eichhornia azurea* Kunth, Aguape de cordao, on the Ribeira river by means of herbicide applications. 18166

EIMERIA

Successful treatment of coccidiosis in lambs. 18313

EIMERIA ACERVULINA

Field experiment with the anticoccidial dimethylalum. 18259

EIMERIA BRUNETTI

Field experiment with the anticoccidial dimethylalum. 18259

EIMERIA MITIS

Field experiment with the anticoccidial dimethylalum. 18259

EIMERIA STIEDAE

Morphological and physiological aspects of sporogony and oocyst viability in the protozoan parasites *Eimeria tenella* and *Eimeria stiedae* (Coccidia). 18419

EIMERIA TENELLA

Morphological and physiological aspects of sporogony and oocyst viability in the protozoan parasites *Eimeria tenella* and *Eimeria stiedae* (Coccidia). 18419

ELATERIDAE

Larvae of click beetles of the genus *Idolus* Desbr. and position of this genus in the system Elateridae (Coleoptera). 17746

ELECTROCARDIOGRAMS

Effects of high gossypol cottonseed meal on the electrocardiogram of swine. 18179

ELECTRODES

Mechanical and electrical activity in the indirect flight muscles of the honey bee. 17820

ELECTROLYTES

Effect of *Xanthomonas vesicatoria* on loss of electrolytes from leaves of *Capsicum annum*. 17970

Water, electrolyte, and acid-base alterations in experimental canine leptospirosis. 18244

Oxalate metabolism in sheep II. Effect of low level Halogeton glomeratus intake on electrolyte metabolism. 18262

ELECTRON MICROSCOPES

Isolation and electron microscopy of potato leafroll virus from plants. 18102

Electron microscope studies of some cephalic structures of *Xiphinema americanum*. 18142

An electron microscope study of the tegument and associated structures of the procercoid of *Diphyllbothrium latum* (L.). 18355

Electron microscopic studies of the nervous system of *Trichodorus christiei* (Abstract). 18447

Electron micrographs of *Rhizopus stolonifer* sporangiospores subjected to chilling. (Abstract). 18458

ELECTRON MICROSCOPY

The formation of the cuticular ridges in the larval pharynx of the blowfly (*Calliphora vicina* R.-D.). 17809

A study of the nuclear polyhedrosis virus on the beet armyworm, *Spodoptera exigua* (Hubner), with emphasis on stability, pathogenicity and histopathology. 17837

Meiotic drive and visible polarity in *Drosophila* spermatocytes. 17909

Tomato bushy stunt virus on tomato crops in Argentina. 18047

Electron microscopic studies on the development of vesicular stomatitis virus. 18236

Characterization of bovine viral diarrhoea viruses by their interactions with susceptible host cells. 18243

SUBJECT INDEX

EPIDEMIOLOGY

- The response of various tissues in neonate calves to bovine papilloma virus (BPV). 18251
- Electron optical and buoyant density studies of hog cholera virus. 18285
- Mitochondrial involvement in the host-parasite relationship. 18305
- Experimental transmission of two canine neoplasms: Lymphosarcoma and mast cell leukemia. 18310
- Eight feline viruses: An electron microscopic study. 18324
- Electron microscopy of bovine papilloma and deer fibroma viruses. 18328
- Biophysical studies of Teschen disease virus (Talfan strain). 18339
- The fine structure of the tegument of *Dipyllobothrium latum* (L.). A comparison of the plerocercoid and adult stages. 18356
- Stromatal rind formation in the brown rot fungi. 18477
- ELECTROPHORESIS**
- Electrophoretic variation of proteinase in the digestive juice of the silkworm, *Bombyx mori* L. 17815
- Drosophila* alcohol dehydrogenase isozymes: identity of molecular size. 17838
- Results concerning humoral immunity of *Pyrrhocoris apterus* L. and *Galleria mellonella* F. 17842
- Sub-units of acid phosphatase-I in *Drosophila melanogaster*: Reversible dissociation in vitro. 17862
- Effect of aflatoxin on serum protein fractions of day-old ducklings. 18191
- Myoglobin in control and dystrophic chickens. 18250
- The influence of the host cell, ionic strength and chymotrypsin on foot-and-mouth disease virus electrophoretic mobility. 18345
- Identification of *Xanthomonas* species by acrylamide-gel disc electrophoresis of soluble bacterial proteins. (Abstract). 18439
- Disc electrophoresis of sonic extracts of five phytopathogenic bacteria. (Abstract). 18444
- A biochemical role for boron. 18456
- Auxin-induced elimination of a protein in bean hypocotyl. 18470
- ELECTROPHYSIOLOGY**
- Electrical activity in insect nerve cell bodies. 17846
- ELSINOE FAWCETTI**
- Chemical control of scab and anthracnose on susceptible varieties of Citrus in Florida. (Abstract). 17981
- EMBRYOLOGY**
- Vital staining of insect eggs by incorporation of trypan blue. 17878
- Mortality staging of dominant lethals induced in the F1 generation of sugarcane borer; *Diatraea saccharalis* (F.). 18127
- Establishment of the pathological relationship between plant and animal isolates of *Geotrichum candidum*, in embryonated chicken eggs. 18239
- ENCEPHALOMYOCARDITIS**
- Helminths as vehicles and synergists of microbial infections. 18376
- ENDOCARDITIS**
- A case of porcine endocarditis associated with *Staphylococcus aureus*. 18248
- ENDOCRINE GLANDS**
- Data on the endocrine system of several Diplopoda, Oniscomorphes (Myriapoda). 17841
- Growth and development of the bovine as related to certain endocrine factors. 18234
- ENTERIC CYTOPATHOGENIC PORCINE ORPHAN VIRUS**
- Avian adeno-like viruses- Characterization and comparison of seven isolates. 18224
- ENTERITIS**
- Corynebacterium equi* infection in two foals. 18225
- Clostridium perfringens* type A infection of ligated intestinal loops in lambs. 18255
- Histidine decarboxylase in strains of *Escherichia coli* isolated from normal swine and swine with edema disease and enteric disorders. 18307
- ENTEROBACTERIACEAE**
- Antibody response to immunization in experimental Salmonellosis. 18269
- ENTOMOLOGY**
- A prodrome of the genus *Orthopodomyia* (Diptera, Culicidae). 17775
- Siphona kangwayei* n. sp., a blood sucking fly from Uganda (Diptera: Muscidae). 17776
- Notes on microanalytical techniques in the analysis of foods for extraneous materials. 17792
- Studies on the morphology and biology of *Lecanium fletcheri* Ckll. (Homoptera, Coccoidea) and related species. 17813
- Notes on deathwatch beetles (Coleoptera). 17821
- The phylogenetic development of food selection in certain orthopteroids. 17825
- Biting in Orthoptera and their allies. 17826
- Parthenogenesis in gum emperor moth *Antheraea eucalypti* (Scott). 17840
- Effects of mold inhibitors in larval diet on the biology of the cabbage looper. 17847
- On the *Sphodromantis* of the species *viridis* from northwest Africa. 17849
- Biology of the elm leaf beetle in southern Arizona. 17898
- Mitotic chromosomes of *Glossina pallidipes* Austen. 17905
- ENTOMOPHTHORA CORONATA**
- Biological and ecological relationships of the fungus, *Entomophthora coronata* (Costantin) Kevorkian and the garden symphytan, *Scutigerella immaculata* (Newport). 18012
- ENVIRONMENT**
- Information concerning the African bark and nut beetles fauna (Coleoptera scolytidae and platypodidae). 17762
- Notes on raising Lepidoptera in Meurthe and Moselle. 17763
- Studies of caste differentiation in *Myrmica rubra* L. 9. Maternal environment and the caste bias of larvae. 17791
- Some aspects of mating behavior in butterflies. 17864
- Comparison of application rates of some soil insecticides for control of western corn rootworm larvae in Missouri. 17866
- Patch canker of *Hevea brasiliensis* caused by *Phytophthora palmivora*. 17967
- Environmental effects and transfer events during primary infection of wheat by *Erysiphe graminis*. 18038
- Conditions for infection of celery by *Septoria apicola*. 18059
- Organisation of anti-rat campaigns. 18177
- Sources of salmonellas in market swine. 18342
- The effect of environmental and biological factors on the persistence of malathion applied in low volume technical and emulsifiable concentrate forms to cotton plants. 18386
- Macroinvertebrates. Fresh water. 18402
- Analytical problems: Mercury in the general environment. 18408
- ENZOOTIC ABORTION**
- Placental pathology of experimentally-induced enzootic abortion in ewes. 18300
- ENZYMES**
- Electrophoretic variation of proteinase in the digestive juice of the silkworm, *Bombyx mori* L. 17815
- Studies on insect (*Periplaneta americana* L.) phosphofructokinase. 17827
- Enzymatic hydrolysis of the encysted parasporale of *Bacillus thuringiensis* by *Bombyx mori* L. proteases. 17852
- Aspartate aminotransferase in the pea aphid, *Acyrtosiphon pisum* (Harris). 17876
- Protein and enzyme changes in wheat leaves following infection with *Puccinia recondita*. 18005
- Relationships between zinc nutrition and alkaline phosphatase activity in the chick. 18220
- A biochemical role for boron. 18456
- The study of the effect of amitrol on the respiration and activity of some enzymes in poppy plants (*Papaver somniferum* L.). 18479
- EPHEMEROPTERA**
- A contribution to the ecology of the May-fly *Palingenia sublongicauda* Tshern. In the Volga delta. 17754
- EPHESTIA ELUTELLA**
- Chambers for collecting and observing single pupae of three stored-product moths. 17883
- EPIDEMIOLOGY**
- A new species of the gamasid mite *Ichoronyssus mirabilis* Senotrusova et Tagiltsev sp. n. (Acariformes, Gamasoidea) from whiskered millers of the Zaisan hollow. 17769
- Studies of the epidemiology of arthropod-borne virus infections at Mitchell River Mission, Cape York Peninsula, north Queensland. II. Arbovirus infections of mosquitoes, man, and domestic fowls, 1963-1966. 17910

SUBJECT INDEX

EPIDIDYMIIS

Studies of the epidemiology of arthropod-borne virus infections at Mitchell River mission, Cape York Peninsula, north Queensland. I. Mosquito collections, 1963-1966.

17914

Gamasid mites (Gamasoidea) as vectors of the disease causative agents.

17915

Low light intensity promotes melting out of bluegrass. (Abstract).

18026

Effect of control programs on development of epidemics of Dutch elm disease. (Abstract).

18034

Effects of nematode extraction method, soil mixture, and nematode numbers on the transmission of tobacco ringspot virus by *Xiphinema americanum*.

18070

The role of the epidemiologist in the control and eradication programs of poultry diseases.

18296

Animal sentinels in a statewide arthropod-borne encephalitis surveillance program.

18298

Rabies control in public health administration.

18303

What veterinarians can do about the salmonella problem.

18321

The epizootiological importance of foot-and-mouth disease carriers. I. Experimentally produced foot-and-mouth disease carriers in susceptible and immune cattle.

18326

The connection between sunspot cycles and mass mortality among vertebrates and non-vertebrates due to parasitic activity.

18327

Helminths as vehicles and synergists of microbial infections.

18376

Microbiology. Gastrointestinal outbreaks.

18392

EPIDIDYMIIS

Seminal vesiculitis syndrome: Lesions in genital organs of young bulls.

18208

EPITHELIAL TUMORS

Seminal vesiculitis syndrome: Lesions in genital organs of young bulls.

18208

EPITHELIUM

An electron microscope study of the tegument and associated structures of the procercoid of *Dipyllobothrium latum* (L.).

18355

The fine structure of the tegument of *Dipyllobothrium latum* (L.). A comparison of the procercoid and adult stages.

18356

EPIZOOTIC DISEASES

Introducing and establishing the noninclusion virus of the citrus red mite in citrus groves.

18117

Salmonella typhimurium infection in Minnesota swine.

18209

Ecologic aspects of listeriosis.

18214

Bluetongue of sheep and cattle: past, present, and future.

18217

An outbreak of ringworm among cattle in Shimane.

18252

Pathological changes of acute Newcastle disease in an outbreak in Miyazaki Prefecture with special reference to those of the cloaca.

18268

Treatment of *Strongyloides ransomi* infection of pigs with Thiabendazole and Diehlvoros.

18275

Contagious bovine pleuropneumonia and the problems associated with its control.

18276

Psittacosis-lymphogranuloma venereum agent isolated during an abortion epizootic in goats.

18286

The role of the epidemiologist in the control and eradication programs of poultry diseases.

18296

What veterinarians can do about the salmonella problem.

18321

The epizootiological importance of foot-and-mouth disease carriers. I. Experimentally produced foot-and-mouth disease carriers in susceptible and immune cattle.

18326

Common disease problems in laboratory animals.

18332

Some studies on the pathogenesis and epizootiology of epizootic hemorrhagic disease of deer.

18340

EQUINE ENCEPHALOMYELITIS

Animal sentinels in a statewide arthropod-borne encephalitis surveillance program.

18298

EQUINE INFECTIOUS ANEMIA

Behavior of equine infectious anemia virus in cell culture and development of a diagnostic test for the disease.

18240

EQUINE INFLUENZA

The use of polyvalent inactivated vaccine therapeutically against equine influenza.

18278

EQUIPMENT

An improved incubator for insects for operation above room temperature and relative humidity.

17734

Carbon dioxide-powered plot sprayer for turf-grass disease control fungicide application.

17969

Factors influencing aflatoxin accumulation in peanut kernels and the associated mycoflora.

18043

Stained monolayer test: a color test in disposable plastic trays for titrating transmissible gastroenteritis virus and neutralizing antibodies.

18343

A new technique for the recovery of *Fasciola gigantica* eggs from cattle faeces.

18354

Studies on the laboratory soiling of milking equipment.

18409

Engineering and biological aspects of designing and using a selective flame weeder.

18493

Speedometer adapted for fog calculations.

18494

ERWINIA

Disc electrophoresis of sonic extracts of five phytopathogenic bacteria. (Abstract).

18444

ERWINIA AMYLOVORA

Permeability changes in pear fruits associated with pathogenesis by *Erwinia amylovora*. (Abstract).

17961

Ultrastructural changes in apple leaf cells induced by virulent and avirulent strains of *Erwinia amylovora*. (Abstract).

17989

Serological diagnostic method without isolation of *Erwinia amylovora* culture from a diseased plant.

18002

Recent spread and present distribution of fire blight in the world.

18081

ERYSIPLOTHRIX INSIDIOSA

Experimental production of rheumatoid arthritis of swine: Physiopathologic changes of tissues.

18319

ERYSIPHE GRAMINIS

Environmental effects and transfer events during primary infection of wheat by *Erysiphe graminis*.

18038

Physiologic race changes in barley mildew 1964-67.

18130

ERYTHROCYTES

Isolation and characterization of three plaque-type clones of the hickman strain of Newcastle disease virus.

18235

ESCHERICHIA COLI

Results concerning humoral immunity of *Pyrrhocoris apterus* L. and *Galleria mellonella* F.

17842

Experimental colibacillosis and the development of carries in laying hens.

18206

Antibody response to immunization in experimental Salmonellosis.

18269

Serologic response of swine to *Escherichia coli* antigens.

18273

Histidine decarboxylase in strains of *Escherichia coli* isolated from normal swine and swine with edema disease and enteric disorders.

18307

Helminths as vehicles and synergists of microbial infections.

18376

ESOPHAGUS

Data on the endocrine system of several Diplopoda, Oniscomorphes (Myriapoda).

17841

Duck plague.

18263

ESTERS

Plant hormones-V. Thin-layer and gas-liquid chromatography of the gibberellins; direct identification of the gibberellins in a crude plant extract by gas-liquid chromatography.

18485

ESTRADIOL

Response of beef cows to exogenous progesterone and estradiol at various stages postpartum.

18192

ESTROGENS

Effect of fungal estrogen F-2 on the production of perithecia by *Fusarium roseum Graminearum*. (Abstract).

18442

ETHION

Attempts at combatting oystershell scale, *Lepidosaphes ulmi* (L.), on apple trees in orchards of Quebec.

18109

ETHOPABATE

Successful treatment of coccidiosis in lambs.

18313

ETHYLENE

Relationship of ethylene to curly top symptoms. (Abstract).

17988

ETHYLENE CHLOROHYDRIN

Infrared studies of ethylene chlorohydrin.

18486

ETHYLENE OXIDE

Ethylene oxide for the control of American foulbrood in honey bees.

17881

ETHYLENEDIAMINETETRAACETIC ACID

Notes on microanalytical techniques in the analysis of foods for extraneous materials.

17792

EUBLABERUS DISTANTI

Reproduction of some poorly known species of Blattaria.

17765

SUBJECT INDEX

FEEDING

EUBLABERUS POSTICUS

Reproduction of some poorly known species of Blattaria. 17765

EUSCELIDIUS VARIEGATUS

The directions of the flow of food in the alimentary tract of the leafhopper *Euscelidius variegatus* KBM. (Jassidae). 17865

EXOCORTIS (ORANGES)

Exocortis in Ortanique orange. 18001

EXPERIMENTAL INSECTS

Bionomics of the mosquito *Anopheles franciscanus* Mcracken in California. 17783

Photoinhibitory function of the dorsal ocelli in the phototactic reaction of the migratory locust *Locusta migratoria* L. 17786

Sex ratio in pupae of the yellow-striped armyworm. 17789

Field studies of sex attraction in the boll weevil. 17790

Mechanism of locust jumping. 17793

Laboratory propagation of *Muscidifurax* raptor on face fly pupae. 17794

Selective recovery of volatile products from house flies treated with radioactive insecticide chemicals and synergists. 17796

Chemical sterilization of the stable fly *Stomoxys calcitrans* (Linne), with metepa and hempa. 17797

Temperature relationships of the development of northern corn rootworm eggs. 17802

Influence of repellency on the efficacy of blatticides. IV. Comparison of four cockroach species. 17814

Difference in response of two strains of screw-worm flies to the male pheromone. 17823

Spread of the boll weevil by drainage water and air currents. 17824

Field tests of chemicals for control of the European corn borer. 17831

Field and laboratory studies on the ecology and morphology of *Nabis americanoferus* Carayon and its parasites in California. 17834

A study of the nuclear polyhedrosis virus on the beet armyworm, *Spodoptera exigua* (Hubner), with emphasis on stability, pathogenicity and histopathology. 17837

Parthenogenesis in gum emperor moth *Antheraea eucalypti* (Scott). 17840

Medium and techniques for mass rearing the red-banded leaf roller. 17843

Costelytra zealandica (White) sex attraction. 17845

Pre-imaginal conditioning in *Drosophila*. 17858

Food distribution within colonies of the Argentine ant, *Iridomyrmex humilis* (Mayr). 17859

Interception of apple maggot adults on colored traps in an orchard. 17860

Endogenous diurnal rhythm of pupation in a mosquito population. 17868

Chambers for collecting and observing single pupae of three stored-product moths. 17883

The effect of blood-feeding on the longevity of radiation-resistant yellow-fever mosquitoes. 17885

Rearing stored product insects for laboratory studies: Six species of moths. 17887

Biology of the elm leaf beetle in southern Arizona. 17898

Comparative life histories of chlordane-resistant and nonresistant German cockroaches. 17901

Oviposition preferences of western corn rootworms for various soil surface conditions. 18100

A medium for laboratory rearing of the peach tree and lesser peach tree borers. 18114

Introducing and establishing the noninclusion virus of the citrus red mite in citrus groves. 18117

Role of host plant in production of winged forms by a green strain of pea aphid *Acyrtosiphon pisum*. 18120

EXTRACTS

New techniques to bioassay the sex attractant of pink bollworms with olfactometers. 17829

Cytochrome oxidase and mitochondrial protein in extracts of leaves of *Nicotiana glutinosa* L. Infected with tobacco mosaic virus. 18045

Oligosaccharidases from *Macracanthorhynchus hirudinaceus* (Acanthocephala) from swine. 18186

Levels of 5 beta-pregnan-3 alpha, 6 alpha-diol-20-one in urine and its relationship to other metabolites of progesterone in urine of the non-pregnant domestic sow. 18189

Comparison of metabolites of progesterone-4-14C in urine from a nonpregnant domestic sow. 18190

Myoglobin in control and dystrophic chickens. 18250

Note on the determination of carbaryl residues in hen skin. 18406

Plant growth regulations in *Ditylenchus dipsaci*, *Ditylenchus trifurmis* and host tissues. 18437

Light stimulated biosynthesis of gibberellins in *Fusarium moniliforme*. 18462

Effect of calcium availability on alfalfa grown in calcareous high sodium soils. 18464

Nutritional requirements of a tomato tissue culture: Growth promoting factors from peas. 18478

Gel permeation cleanup for malathion in wheat, using a non-ionic, cross-linked polystyrene polymer. 18482

Plant hormones-V. Thin-layer and gas-liquid chromatography of the gibberellins; direct identification of the gibberellins in a crude plant extract by gas-liquid chromatography. 18485

EYES

Photoinhibitory function of the dorsal ocelli in the phototactic reaction of the migratory locust *Locusta migratoria* L. 17786

The occurrence of bacteria in chronic purulent eye discharge. 18335

FASCIOLA GIGANTICA

A new technique for the recovery of *Fasciola gigantica* eggs from cattle faeces. 18354

FAT BODY

Accumulation of glycine in the fat body of the silkworm, *Bombyx mori* L. 17803

FATTY ACIDS

Relation of invasion of cereal grains and oil seeds by storage fungi to increase in total and major individual fatty acids. (Abstract). 18031

FEATHERS

Mercury content in feathers of Swedish birds from the past 100 years. 18198

FECEs

Further studies on the effect of bovine diet on face fly development. 17766

Corynebacterium equi infection in two foals. 18225

A new technique for the recovery of *Fasciola gigantica* eggs from cattle faeces. 18354

FEED

Studies on the pathogen and vector of dutch elm disease. A. Morphogenesis in *Ceratocystis ulmi*. B. Chemicals stimulating feeding by *Scolytus multistriatus*. II. An improved method for the isolation of a toxic metabolite from *Rhizoctonia leguminicola*. 18051

Alberta, 255,000 square miles, free of rats. 18175

Determination of cesium-137 and related sampling problems of dairy cattle feeds, 1962-1967. 18197

Some nutritional aspects of dietary magnesium in ruminants and poultry. 18227

Survival of salmonella, viable bacterial count and appearance of contamination-indicating organisms in Salmonella-positive feedstuff. 18253

Medicated feeds; approval of new drug applications. 18270

The utilization of vitamin A and carotene by ruminants. 1. Vitamin A potency of carotenes in corn silage fed to lambs. 2. The effect of time and route of administration of vitamin A on liver vitamin A storage by steers. 3. The effect of route of administration of vitamin A on blood serum and liver vitamin A concentrations in steers at subsequent time intervals. 18281

Further evaluation of animal systemic insecticides, 1967. 18347

Niagara NIA-10242 insecticide residues: Their persistence in coastal bermudagrass, corn, and silages, and their effect, fed in silage, on lactating cows. 18400

Pyrrolizidine alkaloid poisoning in calves. 18412

Qualitative identification of chlortetracycline and oxytetracycline in feeds. 18491

FEED ADDITIVES

Medicated feeds; approval of new drug applications. 18270

FEEDING

Some observations on compulsory feeding of sandflies (Diptera, Phlebotominae) with the culture of leptomonads. 17778

Spider populations in grain sorghums. 17784

The phylogenetic development of food selection in certain orthopteroids. 17825

Biting in Orthoptera and their allies. 17826

SUBJECT INDEX

FEEDLOTS

- The influence of temperature and humidity on the development of *Tenebrio molitor* L. 17850
- Food distribution within colonies of the Argentine ant, *Iridomyrmex humilis* (Mayr). 17859
- The development of *Theileria parva* in the salivary glands of the tick, *Rhipicephalus appendiculatus*. 17873
- The effect of blood-feeding on the longevity of radiation-resistant yellow-fever mosquitoes. 17885
- Cross protection between a plant virus and potato psyllid yellows. 18067
- A bioassay technique for screening feeding stimulants for larvae of tobacco budworm. 18096
- A medium for laboratory rearing of the peach tree and lesser peach tree borers. 18114
- Constituents of the cotton bud. XIII. Further studies on a nonpolar feeding stimulant for the boll weevil. 18124
- Effects of high gossypol cottonseed meal on the electrocardiogram of swine. 18179
- Distribution of mercury compounds in fish and birds. 18180
- Effects of urease inhibitors on sheep fed diets containing urea. 18182
- Bacteriological studies of poultry litter fed to livestock. 18203
- Treatment of *Strongyloides ransomi* infection of pigs with Thiabendazole and Dichlorvos. 18275
- Alterations in the response and functions of the chicken pancreas induced by feeding unheated and autoclaved soybean meal. 18314
- FEEDLOTS**
- Growth and development of the bovine as related to certain endocrine factors. 18234
- FELINE INFECTIOUS ENTERITIS**
- Characterization studies on feline panleucopenia virus. (with). II. Pathogenesis in the host. 18233
- FENAC**
- A mechanism of enhanced resistance to *Ceratocystis ulmi* in American elms treated with sodium trichlorophenylacetate. 17956
- FENUSA PUSILLA**
- Control of the birch leaf minor with disulfoton. 18086
- FERTILITY**
- Tetraploid females in the hymenopteron, *Mormoniella*. 17906
- The experimental use of bull semen contaminated with *Pseudomonas aeruginosa* organisms. 18249
- FERTILIZATION (PLANTS)**
- Weeds in agronomic crops. Field corn, soybeans. 18159
- FERTILIZER APPLICATION**
- Experiments and considerations on the anomalies of tomatoes of the super marmande type in hot houses, connections with the use of some plant hormones. 17933
- FERTILIZERS**
- Reducing spring discharge of *Venturia inaequalis* ascospores by composting overwintering leaves. 17929
- Agricultural (livestock) wastes. 18404

FESTUCA ARUNDINACEA

- The interrelationships of *Rhizoctonia solani* and *Helminthosporium vagans*, nitrogen, and variety on alkaloids in *Festuca arundinacea*. (Abstract). 18443

FETAL MEMBRANES

- Improvement of a method for culturing the eggs of the Phasid *Carausius morosus* Br. deprived of the chorion. 17894
- Placental pathology of experimentally-induced enzootic abortion in ewes. 18300

FIBROMA

- Electron microscopy of bovine papilloma and deer fibroma viruses. 18328

FIBROSIS

- Pyrrrolizidine alkaloid poisoning in calves. 18412

FIELD CROPS

- Prevalence of *Thielaviopsis basicola* in naturally infested soil after cultivation of various crops for five consecutive years. (Abstract). 17997
- Weeds in agronomic crops. Field corn, soybeans. 18159
- Tobacco. 18171
- Comparative Cs-137 content of agricultural crops grown in a contaminated soil. 18389

FIGS

- Development of parthenocarpic and non-parthenocarpic syconia of *Ficus carica* L. cv. King in relation to endogenous and exogenous growth regulators. 17927

FILARIASIS

- Biology of vector-associated diseases in Vietnam. 17913
- Epizootiologic observations of canine filariasis in Georgia. 18330

FILTERS

- The directions of the flow of food in the alimentary tract of the leafhopper *Euscelidius variegatus* KBM. (Jassidae). 17865

- Effect of culture filtrates of *Pseudomonas phaseolicola* on the growth of excised roots and callus tissue cultures of bean. (Abstract). 18422

FIRE

- Desert grassland mesquite and fire. 17919

FIRE BLIGHT (FRUIT)

- Serological diagnostic method without isolation of *Erwinia amylovora* culture from a diseased plant. 18002

FISH

- Distribution of mercury compounds in fish and birds. 18180
- Methyl mercury compounds in fish. 18199
- Ecology of *Clostridium botulinum* type E. 18216
- Detergents. 18387
- Detoxification of pesticidal residues in fish and shellfish. 18393
- Water pollution. Effects of pollution on fish life. General aspects of water pollution biology. 18395
- Toxic blue-green algae in Saskatchewan. 18414
- On the principal way of attack of rotenone in fish. 18415
- Toxic effects of odorous trace organics. 18417

FISH CONSERVATION

- Preventing fish and wildlife losses. 18385

FISH MEAL

- Survival of salmonella, viable bacterial count and appearance of contamination-indicating organisms in *Salmonella*-positive feedstuff. 18253

FLAGELLA

- Biochemical and serologic characteristics of *Vibrio* isolants from cattle. 18337

FLAVONES

- Fungistatic constituents in citrus varieties resistant to the mal-secco disease. 18046

FLAX

- Quantitative histology of *Melampsora lini* resistance in flax. (Abstract). 17941

FLORA

- Microflora associated with agalactia syndrome of sows. 18207

FLUORESCENCE

- The statistical description of a spray in terms of drop velocity, size, and position. 18488

FLUORESCENT ANTIBODY TECHNIC

- A fluorescent micro-plaque assay for hog cholera virus. Localization of infection with homologous antiserum. 18291
- Enzootic rabies in rodents in Thailand. 18320

FLUORESCENT DYES

- A possible marker for European corn borer moths. 17882
- Use of fluorescent brightener as aid to studies of fungistasis and nematophagous fungi in soil. 18440

FLUORESCENT SUBSTANCES

- Techniques of marking insects with micronized fluorescent dust with especial emphasis on marking millions of *Lygus hesperus* for dispersal studies. 17886

FOALS

- Corynebacterium equi* infection in two foals. 18225

FOG

- Speedometer adapted for fog calculations. 18494

FOLIAR APPLICATION

- Control of the elm leaf beetle in Arizona. 18128

FOMES ANNOSUS

- Two new hardwood hosts of *Fomes annosus*. 17930
- Survival and growth of *Fomes annosus* at high concentrations of borax. (Abstract). 18450

FOMES APPLANATUS

- Germination of *Fomes applanatus* basidiospores. (Abstract). 18429

FOMES FOMENTARIUS

- Characteristics of a seasonal population of airborne *Fomes fomentarius* basidiospores. (Abstract). 18438

FOMES GEOTROPUS

- An arylsulfatase in the wood rotting basidiomycete, *Fomes geotropus*. 18035

FOOD

- Notes on microanalytical techniques in the analysis of foods for extraneous materials. 17792
- Food distribution within colonies of the Argentine ant, *Iridomyrmex humilis* (Mayr). 17859

SUBJECT INDEX

FUNGICIDES

- The directions of the flow of food in the alimentary tract of the leafhopper *Euscelidius variegatus* KBM. (Jassidae). 17865
- Food intake and growth of burro foals after 250 roentgens of cobalt-60 whole-body gamma irradiation. 18271
- Estimation of radiation resistance values of microorganisms in food products. 18383
- The toxicity and distribution of mercury. 18410
- FOOD ADDITIVES**
- The organization and activities of the Bureau of Veterinary Medicine, Food and Drug Administration. 18496
- FOOD CONTAMINATION**
- A survey to determine the salmonella contamination rate in livestock and poultry feeds. 18204
- Survival of salmonella, viable bacterial count and appearance of contamination-indicating organisms in Salmonella-positive feedstuff. 18253
- FOOD HABITS**
- The phylogenetic development of food selection in certain orthopteroids. 17825
- FOOD PLANTS**
- The phylogenetic development of food selection in certain orthopteroids. 17825
- Pesticides in the coming struggle for food. 17936
- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. Diuron. 18396
- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. alphanaphthaleneacetic acid. 18397
- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. Trifluralin. 18398
- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. Ethyl 4,4'-Dichlorobenzilate. 18399
- FOOD SANITATION**
- What veterinarians can do about the salmonella problem. 18321
- FOOD SUPPLY**
- The phylogenetic development of food selection in certain orthopteroids. 17825
- FOOT-AND-MOUTH DISEASE**
- The epizootiological importance of foot-and-mouth disease carriers. I. Experimentally produced foot-and-mouth disease carriers in susceptible and immune cattle. 18326
- FOOT-AND-MOUTH DISEASE VIRUS**
- Foot-and-mouth disease in swine. I. The immune response of swine to chemically-treated and non-treated foot-and-mouth disease virus. 18288
- Foot-and-mouth disease in swine. II. Some physicochemical characteristics of antibodies produced by chemically-treated and non-treated foot-and-mouth disease virus. 18289
- Changes in protein and nucleic acid metabolism in baby hamster kidney cells infected with foot-and-mouth disease virus. 18308
- Ionizing irradiation of foot-and-mouth disease virus and its ribonucleic acid. 18309
- Some factors affecting interferon production by foot-and-mouth disease virus in bovine tissue cultures. 18316
- Interference between modified and virulent strains of foot-and-mouth disease virus. 18317
- Improved techniques for the detection of foot-and-mouth disease virus in carrier cattle. 18325
- The influence of the host cell, ionic strength and chymotrypsin on foot-and-mouth disease virus electrophoretic mobility. 18345
- FORAGE PLANTS**
- Comparative Cs-137 content of agricultural crops grown in a contaminated soil. 18389
- FOREIGN TRADE**
- Interceptions of plant diseases through the port of Bombay. 18014
- The tolerance of imported commodities to fumigation with methyl bromide. 18112
- FOREST SEED PRODUCTION**
- Insects affecting seed production of Shortleaf pine in the Georgia piedmont. 17748
- FORESTRY**
- Forestry. 18172
- Swedish studies of game that had been found dead as well as specimens that had been shot. 18411
- FORESTS**
- On a tenth new *Sphaeroceraspis* of the central African forest (Hom. Coccoidea Diaspidini). 17740
- Reinfestation of forest sites by the Texas leaf-cutting ant. 18107
- FORMIC ACID**
- Defense mechanisms of arthropods. XXI. Formic acid and n-nonyl acetate in the defensive spray of two species of Heliomorphoidea. 17816
- FORMICIDAE**
- New data concerning the ant genus *Camponotus* (Hymenoptera, Formicidae) from the USSR fauna. 17739
- FOXES**
- Immunization of foxes with inactivated virus rabies vaccine. 18315
- FRAXINUS AMERICANA**
- Two new hardwood hosts of *Fomes annosus*. 17930
- FREQUENCY DISTRIBUTION**
- The frequency of penetration of epidermal strips and intact wheat leaves by *Puccinia graminis* f. sp. tritici. 18060
- FRUIT**
- Development of parthenocarpic and non-parthenocarpic syconia of *Ficus carica* L. cv. King in relation to endogenous and exogenous growth regulators. 17927
- Permeability changes in pear fruits associated with pathogenesis by *Erwinia amylovora*. (Abstract). 17961
- FUMIGANTS**
- Evaluation of nematocides for controlling reniform nematodes on sweetpotatoes. 17918
- Soil fumigants tested for control of crown gall. 17973
- Studies on hydrogen phosphide against the red flour beetle in a column of paddy. 18113
- FUMIGATION**
- Reinfestation of forest sites by the Texas leaf-cutting ant. 18107
- The tolerance of imported commodities to fumigation with methyl bromide. 18112
- Fumigation—an effective method of rat control in Kuttanad in Alleppey district (Kerala). 18176
- FUNGI**
- Mitotic recombination in conidiophores of *Verticillium albo-atrum*. 17922
- The impact of fungi on man. QK603.0T3. 17934
- Incidence and pathogenicity of fungi found on cranberry in Wisconsin. 17984
- Biological and ecological relationships of the fungus, *Entomophthora coronata* (Costantin) Kevorkian and the garden symphytan, *Scutigerella immaculata* (Newport). 18012
- Role of nitrogen in wood deterioration. VI. Mycelial fractions and model nitrogen compounds as substrates for growth of *Polyporus versicolor* and other wood-destroying and wood-inhabiting fungi. 18018
- Interactions of *Aphelenchus avenae* and some nematode-trapping fungi in dual culture. 18134
- Fungi in stored products. 18377
- Effect of thiram upon glucose catabolism by *Fusarium oxysporum*. (Abstract). 18425
- Pectolytic enzyme production by *Phymatotrichum omnivorum*. (Abstract). 18427
- Auxotrophic mutants of *Phytophthora* species. (Abstract). 18432
- Effect of fungal estrogen F-2 on the production of perithecia by *Fusarium roseum* Graminearum. (Abstract). 18442
- Phosphorus content during development of *Claviceps purpurea*. 18454
- Light stimulated biosynthesis of gibberellins in *Fusarium moniliforme*. 18462
- Physiology of germination of chlamydospores of *Phytophthora cinnamomi*. 18463
- FUNGICIDES**
- Pesticides and pollution. SB959.0U4. 17863
- Evaluation of systemic fungicides and insecticides for the control of cotton boll rot in vitro. (Abstract). 17943
- Carbon dioxide-powered plot sprayer for turf-grass disease control fungicide application. 17969
- Systemic-chemical paints for the control of *Cytospora* canker disease in prune trees. 17996
- Effect of soil fungicides on development of fungi in soil and on kernels of groundnut. 18003
- Effect of variety on the control of potato late blight with fungicides. (Abstract). 18013
- Annals of the Phytopathological Society of Japan. 18044
- Fungistatic constituents in citrus varieties resistant to the mal-secco disease. 18046

SUBJECT INDEX

FUNGUS DISEASES (ANIMALS)

- New fungicides effective for pecan scab control in Georgia. 18077
- The increased attack of *Ditylenchus dipsaci* on onion caused by some fungicides. 18132
- Analytical problems: Mercury in the general environment. 18408
- The toxicology of different organo-mercurials used as fungicides. 18418
- Laboratory tests of fungicides against *Peronospora parasitica* (Pers. ex. Fr.) Fr. 18433
- Studies on the fungitoxicity of captan. Vi. Decomposition of 35S-labelled captan by *Neurospora crassa* conidia. 18469
- On a mechanism of fungicidal action of surface-active agents. 18475
- Heterocyclically substituted monohalogeno-1,3,5-triazines. Patent 3,407,201. 18490

FUNGUS DISEASES (ANIMALS)

- The impact of fungi on man. QK603.0T3. 17934
- Establishment of the pathological relationship between plant and animal isolates of *Geotrichum candidum*, in embryonated chicken eggs. 18239

FUNGUS DISEASES (PLANTS)

- The effect of disinfection on cereal seeds determined in laboratory experiments and emergence tests in soil. 17924
- The relation of rainfall, relative humidity, and temperature to late blight of potato in Sedes, Sindos-Lahanokipi of Nomos Thessaloniki. 17925
- The impact of fungi on man. QK603.0T3. 17934
- Abstracts of papers accepted for presentation at the sixtieth annual meeting of The American Phytopathological Society, Columbus, Ohio, 2-6 September 1968. 17938
- Irreversible inhibition of spore formation in *Alternaria* tomato by dedifferentiation of conidiophores. (Abstract). 17939
- Quantitative histology of *Melampsora lini* resistance in flax. (Abstract). 17941
- Studies on the chemical control of rice blast caused by *Piricularia oryzae* Cav. 17942
- Evaluation of systemic fungicides and insecticides for the control of cotton boll rot in vitro. (Abstract). 17943
- The biology and ecology of *Fusarium oxysporum* f. *melonis* in soil and the root zones of host and nonhost plants. 17944
- Pathogenicity of some blue-stain fungi in the genus *Ceratocystis*. (Abstract). 17945
- Disease involvement of nonalliaceous hosts by *Pyrenochaeta terrestris*. (Abstract). 17947
- Analysis of competition in model systems. (Abstract). 17949
- Number of zoospores of *Aphanomyces euteiches* required for infection on peas. (Abstract). 17951
- Effects of watering frequency and saturation time on fine root necrosis of peach caused by *Pythium* spp. (Abstract). 17952
- The role of IAA in host reaction to different isolates of *Phytophthora cactorum*. (Abstract). 17955

- A mechanism of enhanced resistance to *Ceratocystis ulmi* in American elms treated with sodium trichlorophenylacetate. 17956
- Morphology and longevity of *Verticillium albo-atrum* in cotton leaves. (Abstract). 17957
- Helicopter application of phytoactin to whitebark pine. (Abstract). 17958
- Chemical treatment of Hypoxylon cankers on aspen. (Abstract). 17959
- Germination of immature and mature spores of *Diplodia natalensis*. (Abstract). 17960
- Relation of uredial and urediospore counts to epiphytic development of wheat rusts and the value of the counts in predicting disease. (Abstract). 17962
- Distribution in Ontario of *Verticillium* strains causing wilt of potatoes. 17963
- Pectin methyl-trans-eliminase as the maceration factor of *Sclerotinia fructigena* and its significance in brown rot of apple. 17965
- Influence of nitrogen form on the incidence and severity of *Aphanomyces* root rot of peas. (Abstract). 17966
- Patch canker of *Hevea brasiliensis* caused by *Phytophthora palmivora*. 17967
- Susceptibility of tomato varieties to *Sclerotium rolfsii*. 17968
- The relationships of ozone, *Lophodermium pinastri* and *Pullularia pullulans* to needle blight of Eastern white pine. 17972
- Occurrence of poplar cankers caused by *Fusarium solani* in Iowa. 17975
- Effect of soil sterilization and soil type on apparent susceptibility of two muskmelon varieties to *Fusarium oxysporum* f. sp. *melonis*. (Abstract). 17976
- Mycelial growth and production of oospores as affected by beta-sitosterol, and the germination of oospores of *Phytophthora megasperma* var. *sojae*. (Abstract). 17979
- Incidence and pathogenicity of fungi found on cranberry in Wisconsin. 17984
- Seedling resistance to powdery mildew of Purdue 5752Cl-7-5-1 wheat derived from *Triticum timopheevi*. (Abstract). 17987
- The development of *Albugo candida*-induced 'green islands' on *Brassica juncea* cotyledons. 17992
- The role of cotton and bean seed exudate in pre-emergence infection by *Rhizoctonia solani*. 17994
- Effect of moderate adult resistance on penetration, hyphal growth rates, and urediospore production by crown rust of oats. (Abstract). 17995
- Ascospore production, discharge and infection by *Glomerella cingulata* causing coffee berry disease. 17999
- Comparative physiology of *Pinus monticola* Dougl. resistant and susceptible to *Cronartium ribicola* J. C. Fisch. ex. Rabenh. 18000
- A *Phytophthora* from subterranean clover roots that attacks soybean and other legumes. (Abstract). 18004

- Protein and enzyme changes in wheat leaves following infection with *Puccinia recondita*. 18005
- Isolation and properties of *Plasmodiophora brassicae* plasmodia from infected crucifer tissues and tissue culture callus. (Abstract). 18008
- The response of bean to ozone as related to infection by *Pseudomonas phaseolicola*. (Abstract). 18009
- Genetic variation in susceptibility to fusiform rust in a wild population of loblolly pine. (Abstract). 18010
- Effect of variety on the control of potato late blight with fungicides. (Abstract). 18013
- Races of *Puccinia polysora* in Nigeria. 18015
- Relationships among races of *Pyricularia oryzae*. (Abstract). 18016
- Multiplication of *Pseudomonas glycinea* in buds of soybean seedlings. (Abstract). 18017
- Effect of rutin and its degradation products on *Fusarium* root rot of bean. (Abstract). 18019
- Phytoalexin production in corn resistant to *Helminthosporium turcicum*. 18020
- Stimulation of *Sclerotium rolfsii* and its antagonists by volatile components of alfalfa hay. (Abstract). 18021
- Stem rust infection and development in artificially inoculated fields of wheat at Hays, Kans., and its effect on yield, 1960 to 1965. (Abstract). 18022
- Low light intensity promotes melting out of bluegrass. (Abstract). 18026
- Concentrations of solutes in blister rust infections of western white pine. (Abstract). 18030
- Relation of invasion of cereal grains and oil seeds by storage fungi to increase in total and major individual fatty acids. (Abstract). 18031
- Alternaria tenuis* on *Antirrhinum*. 18033
- Interaction of *Meloidogyne javanica* and *Phytophthora parasitica* var. *nicotianae* on *Nicotiana tabacum* (N. C. 95.) (Abstract). 18036
- Environmental effects and transfer events during primary infection of wheat by *Erysiphe graminis*. 18038
- Some additions to the species of *Cercospora* from West Pakistan. 18040
- Increasing the efficacy of fungicidal control of black pod rot of cacao incited by *Phytophthora palmivora*. (Abstract). 18041
- Factors influencing aflatoxin accumulation in peanut kernels and the associated mycoflora. 18043
- Annals of the Phytopathological Society of Japan. 18044
- Studies on the pathogen and vector of dutch elm disease. A. Morphogenesis in *Ceratocystis ulmi*. B. Chemicals stimulating feeding by *Scolytus multistriatus*. II. An improved method for the isolation of a toxic metabolite from *Rhizoctonia leguminicola*. 18051
- Susceptibility of weakened cottonwood stems to fungi associated with blackstem. 18055

SUBJECT INDEX

GENETICS

- Factors affecting the infection of black spruce (*Picea mariana* Mill.) transplants by *Cylindrocladium scoparium*. 18056
- Conditions for infection of celery by *Septoria apiicola*. 18059
- Additional information on the pathogenicity of *Sclerotinia lagerbergii*. 18065
- Studies of the resistance of local apple varieties to scab (*Venturia inaequalis* (cke.) Wint.) under climatic conditions of Central Anatolia. 18073
- Ultrastructure of host and parasite in compatible and incompatible interactions of *Zea mays* L. with *Puccinia sorghi* Schw. 18074
- New fungicides effective for pecan scab control in Georgia. 18077
- Root rot as a cause of red clover decline in leys in Finland. 18079
- On light-sensitivity in germinating uredospores of wheat brown rust. 18080
- Establishment of the pathological relationship between plant and animal isolates of *Geotrichum candidum*, in embryonated chicken eggs. 18239
- Effect of temperature on germination of *Podosphaera leucotricha* conidia. (Abstract). 18436
- Teliospore germination of *Puccinia recondita* f. sp. *tritici* (Abstract). 18452
- Stromatal rind formation in the brown rot fungi. 18477
- FUSARIUM**
- The effect of disinfection on cereal seeds determined in laboratory experiments and emergence tests in soil. 17924
- Potential of the *Rhizobium-Fusarium* interactions on the incidence of alfalfa root rot. 18006
- Influence of nitrogen nutrition on *Fusarium* root rot of pinto bean and on its suppression by barley straw. 18028
- Cultural and pathogenicity studies of induced variants of bean and pea root rot *Fusarium* species. 18078
- Chemistry and physiologic action of the antibiotic phytoactin. 18492
- FUSARIUM MONILIFORME**
- A leaf blight of corn (*Zea mays*) incited by *Fusarium moniliforme*. (Abstract). 18053
- Light stimulated biosynthesis of gibberellins in *Fusarium moniliforme*. 18462
- FUSARIUM NIVALE**
- Ecology and possible significance of *Perithecia* of *Calonectria nivalis* in the Pacific Northwest. 17971
- FUSARIUM OXYSPORUM**
- The biology and ecology of *Fusarium oxysporum* f. *melonis* in soil and the root zones of host and nonhost plants. 17944
- Effect of soil sterilization and soil type on apparent susceptibility of two muskmelon varieties to *Fusarium oxysporum* f. sp. *melonis*. (Abstract). 17976
- Effect of thiram upon glucose catabolism by *Fusarium oxysporum*. (Abstract). 18425
- Extent of *Aspergillus flavus* and *Fusarium oxysporum* germination in soil and in the rhizosphere of peanut. (Abstract). 18445
- FUSARIUM ROSEUM**
- Effect of fungal estrogen F-2 on the production of perithecia by *Fusarium roseum* Graminearum. (Abstract). 18442
- FUSARIUM SOLANI**
- Occurrence of poplar cankers caused by *Fusarium solani* in Iowa. 17975
- Effect of soil fungicides on development of fungi in soil and on kernels of groundnut. 18003
- Cultural and pathogenicity studies of induced variants of bean and pea root rot *Fusarium* species. 18078
- FUSARIUM SOLANI PHASEOLI**
- Analysis of competition in model systems. (Abstract). 17949
- Effect of rutin and its degradation products on *Fusarium* root rot of bean. (Abstract). 18019
- FUSICLADIUM EFFUSUM**
- New fungicides effective for pecan scab control in Georgia. 18077
- GALLERIA MELLONELLA**
- Results concerning humoral immunity of *Pyrrhocoris apterus* L. and *Galleria mellonella* F. 17842
- GAMASIDES**
- A new species of the gamasid mite *Ichoronyssus mirabilis* Senotrusova et Tagiltsev sp. n. (Acariformes, Gamasoidea) from whiskered millers of the Zaisan hollow. 17769
- Gamasid mites (Gamasoidea) as vectors of the disease causative agents. 17915
- GAMBUSIA AFFINIS**
- Studies on a biological and a chemical method of controlling the dark rice field mosquito in Louisiana. 18090
- GAME ANIMALS**
- Swedish studies of game that had been found dead as well as specimens that had been shot. 18411
- GAMMA GLOBULINS**
- Effect of aflatoxin on serum protein fractions of day-old ducklings. 18191
- GAMMA RAYS**
- Some effects of gamma radiation on the tobacco budworm *Heliothis virescens* (Fabricius). 17818
- The effect of blood-feeding on the longevity of radiationresistant yellow-fever mosquitoes. 17885
- Gamma-ray-induced mutations in *Drosophila melanogaster* oocytes: The phenomenon of dose rate. 17904
- Gamma irradiation of *Heterodera schachtii*. 18152
- Avirulent mutant of a strain of ornithosis agent obtained by gamma irradiation. 18195
- Food intake and growth of burro foals after 250 roentgens of cobalt-60 whole-body gamma irradiation. 18271
- Chromosomal alternations in pearl millet induced by gammarays. 18465
- GARBAGE (FEED)**
- An enzootic of pseudorabies in swine in California. 18257
- GASTROENTERITIS**
- A collective outbreak of transmissible gastroenteritis in swine. III. Isolation of a virus with cytopathogenic effect and its properties. 18241
- Stained monolayer test: a color test in disposable plastic trays for titrating transmissible gastroenteritis virus and neutralizing antibodies. 18343
- Microbiology. Gastrointestinal outbreaks. 18392
- GASTROINTESTINAL SYSTEM**
- The directions of the flow of food in the alimentary tract of the leafhopper *Euscelidius variegatus* KBM. (Jassidae). 17865
- Clinical aspects of toxic infections by anaerobic germ spores in ruminants. 18229
- Gastrointestinal parasitism in feeder calves of southern Illinois. 18279
- Microbiology. Gastrointestinal outbreaks. 18392
- GELS**
- Identification of *Xanthomonas* species by acrylamide-gel disc electrophoresis of soluble bacterial proteins. (Abstract). 18439
- Gel permeation cleanup for malathion in wheat, using a non-ionic, cross-linked polystyrene polymer. 18482
- GENES**
- Studies on selection in natural and experimental populations of *Drosophila pseudoobscura*. 17781
- Oncogenesis in the (tu) y2v/vg strain of *Drosophila melanogaster*. 17787
- Electrophoretic variation of proteinase in the digestive juice of the silkworm, *Bombyx mori* L. 17815
- Physiological genetics of melanotic tumors in *Drosophila melanogaster*. V. Amino acid metabolism and tumor formation in the tu bw; st su-tu strain. 17902
- Effectiveness of specific genes and gene combinations in conferring resistance to races of *Xanthomonas malvacearum* in Upland cotton. (Abstract). 17978
- Phytoalexin production in corn resistant to *Helminthosporium turcicum*. 18020
- Genetics of reaction to *Puccinia sorghi* in ten corn inbred lines from Africa and Europe. 18076
- GENETICS**
- Actinomycin D-induced phenocopies in *Drosophila melanogaster* and their relevance to differential gene transcription. The genetic basis of actinomycin D-induced preferential killing of *Drosophila melanogaster* males. 17907
- Effectiveness of specific genes and gene combinations in conferring resistance to races of *Xanthomonas malvacearum* in Upland cotton. (Abstract). 17978
- Genetic variation in susceptibility to fusiform rust in a wild population of loblolly pine. (Abstract). 18010
- Effects of genetic cellular resistance on cell transformation and virus replication in chicken hematopoietic cell cultures infected with avian myeloblastosis virus (BAI-0A). 18295
- Tick resistance in cattle: its stability and correlation with various genetic characteristics. 18348

SUBJECT INDEX

GEOGRAPHY

A physiologic-genetic study of the differential response of navy beans (*Phaseolus vulgaris* L.) to zinc. 18466

GEOGRAPHY

Notes on raising Lepidoptera in Meurthe and Moselle 17763

A review of recent literature on the host plant range of the genus *Liriomyza* mik (Diptera: Agromyzidae) in the Continental United States and Hawaii, excluding Alaska. 17770

Recent spread and present distribution of fire blight in the world. 18081

Occurrence of fiber containing fluorescent spots associated with *Aspergillus flavus* boll rot in the U. S. cotton crop of 1967. 18108

GEOMETRIDAE

Meteorological factors affecting the activity of night flying Macro-Lepidoptera. 17832

GEORGIA

Insects affecting seed production of Shortleaf pine in the Georgia piedmont. 17748

GEOTRICHUM CANDIDUM

Establishment of the pathological relationship between plant and animal isolates of *Geotrichum candidum*, in embryonated chicken eggs. 18239

GERANIOL

Pre-imaginal conditioning in *Drosophila*. 17858

GERM-FREE LIFE

Liver granulomas of turkeys caustive agents and mechanism of infection. 18294

Experimental infection of gnotobiotic *Tenebrio molitor* and white rats with *Hymenolepis diminuta* (Cestoda: Cyclophyllidae). 18363

GIBBERELLIC ACID

Interaction of growth regulators in the senescence of nasturtium leaf disks. 18426

Comparison of the effects of gibberellic acid and aflatoxin in germinating seeds. 18449

Red light induction of gibberellin synthesis in leaves. 18468

GIBBERELLINS

Comparative gibberellin relationships in tall and dwarf peas (*Pisum sativum* L.). 17916

Development of parthenocarpic and non-parthenocarpic syconia of *Ficus carica* L. cv. King in relation to endogenous and exogenous growth regulators. 17927

Light stimulated biosynthesis of gibberellins in *Fusarium moniliforme*. 18462

Wound-induced gibberellins. 18467

Plant hormones-V. Thin-layer and gas-liquid chromatography of the gibberellins; direct identification of the gibberellins in a crude plant extract by gas-liquid chromatography. 18485

GLANDS (INSECTS)

Defense mechanisms of arthropods. XXI. Formic acid and n-nonyl acetate in the defensive spray of two species of Heliomorphoidea. 17816

Data on the endocrine system of several Diplopoda, Oniscomorphes (Myriapoda). 17841

Functional degeneration of the venomous gland of *Apis* during the summer and winter. 17851

GLOBIDIOSIS

Atypical Globidiosis in a lamb. 18213

GLOBIDIMUM GILRUTHII

Atypical Globidiosis in a lamb. 18213

GLOMERELLA CINGULATA

Ascospore production, discharge and infection by *Glomerella cingulata* causing coffee berry disease. 17999

Chemistry and physiologic action of the antibiotic phytoactin. 18492

GLOSSINA

Retraction of the claim that host pregnancy affects pupal production by the tsetse fly. 17867

GLOSSINA PALLIDIPES

Mitotic chromosomes of *Glossina pallidipes* Austen. 17905

GLUCOSE

Effect of thiram upon glucose catabolism by *Fusarium oxysporum*. (Abstract). 18425

Oxalate biosynthesis and pathways for glucose catabolism in *Sclerotium rolfsii* Sacc. 18459

GLUCURONIDASE

Levels of 5 beta-pregnan-3 alpha, 6 alpha-diol-20-one in urine and its relationship to other metabolites of progesterone in urine of the non-pregnant domestic sow. 18189

Comparison of metabolites of progesterone-4-14C in urine from a nonpregnant domestic sow. 18190

GLYCINE

Accumulation of glycine in the fat body of the silkworm, *Bombyx mori* L. 17803

A comparative study of cell wall glycopeptide structure of some bovine vibrios. 18247

GLYCOLYSIS

Studies on insect (*Periplaneta americana* L.) phosphofructokinase. 17827

GLYCOPEPTIDES

A comparative study of cell wall glycopeptide structure of some bovine vibrios. 18247

GLYCURONIC ACIDS

Administration of glycuronic acid and its excretion in dairy cows. 18333

GOATS

Retraction of the claim that host pregnancy affects pupal production by the tsetse fly. 17867

Contagious bovine pleuropneumonia and the problems associated with its control. 18276

Psittacosis-lymphogranuloma venereum agent isolated during an abortion epizootic in goats. 18286

GOSSYPOL

Effects of high gossypol cottonseed meal on the electrocardiogram of swine. 18179

GRAIN

The composition of the thrips species in cereals in Finland. 17753

The effect of disinfection on cereal seeds determined in laboratory experiments and emergence tests in soil. 17924

Ecology and possible significance of *Perithecia* of *Calonectria nivalis* in the Pacific Northwest. 17971

Relation of invasion of cereal grains and oil seeds by storage fungi to increase in total and major individual fatty acids. (Abstract). 18031

Survival of *Rhopalosiphum padi* in stored grain during cold weather. 18097

Fungi in stored products. 18377

Comparative Cs-137 content of agricultural crops grown in a contaminated soil. 18389

GRANULOMA

Histopathologic changes in male swine with experimental Brucellosis. 18237

Liver granulomas of turkeys caustive agents and mechanism of infection. 18294

Studies on parasitic granuloma in the dog. 18365

GRANULOSES

Preliminary evaluation of a granulosis virus for control of the codling moth. 17822

GRAPEFRUIT

Quantitative changes in organic acids in roots and leaves from grapefruit seedlings infected with *Rhadopholus similis*. 18138

GRAPES

Black vine weevil larval damage to concord grape roots at different population densities. 18088

Plant-parasitic nematodes in grape and raspberry soils of Ontario and a comparison of extraction techniques. 18153

GRASSES

Carbon dioxide-powered plot sprayer for turf-grass disease control fungicide application. 17969

Comparative Cs-137 content of agricultural crops grown in a contaminated soil. 18389

Seasonal variation in the concentration of caesium-137 in grass and alfalfa. 18487

GREENHOUSE CULTURE

Soil fumigants tested for control of crown gall. 17973

Races of *Puccinia polysora* in Nigeria. 18015

Pathogenic and cultural variation in *Phytophthora nicotianae* var *parasitica* from greenhouse plants. 18064

Introducing and establishing the noninclusion virus of the citrus red mite in citrus groves. 18117

Red pine needle structure. 18451

GREENHOUSES

The effect of disinfection on cereal seeds determined in laboratory experiments and emergence tests in soil. 17924

Selective staining of dead cells in bean leaves injured by ozone. 17931

Experiments and considerations on the anomalies of tomatoes of the super marmande type in hot houses, connections with the use of some plant hormones. 17933

Conditions for infection of celery by *Septoria apiicola*. 18059

The growth, development and control of common ragweed. 18160

Vegetable crops III. Cucumbers, watermelons, cantaloupes, squash. 18168

SUBJECT INDEX

HERBICIDES

GROWTH FACTORS

- The growth, development and control of common ragweed. 18160
- Light quality effects on growth and development of ragweed. 18161
- Growth, development and control of wild radish. 18162
- Herbaceous annual and perennial weeds. 18174

GUINEA PIGS

- Copper and ascorbic acid in guinea pig tissues as effected by dietary intake. 18290
- The effect of trauma on production of herpes interferon in guinea pigs. 18331
- Anthelmintic activity of some carbamate derivatives. 18374

HABITATS

- On a tenth new *Sphaeroceraspis* of the central African forest (Hom. Coccoidea Diaspidini). 17740
- On Diptera in small mammal burrows in northern Europe and southern Spain. 17750

HAEMATOBIA IRRITANS

- Horn fly control with coumaphos. 18349

HAEMONCHUS

- Nematodiasis in Louisiana dairy cattle. Impact of host nutrition upon experimental ostertagiasis in the bovine. 18212

HAEMONCHUS CONTORTUS

- Studies on the spring phenomenon in ovine helminthiasis. I. Spring rise in stabled sheep. 18372

HALOGEN COMPOUNDS

- Heterocyclically substituted monohalogeno-1,3,5-triazines. Patent 3,407,201. 18490

HALOGETON GLOMERATUS

- Oxalate metabolism in sheep II. Effect of low level Halogeton glomeratus intake on electrolyte metabolism. 18262

HAMSTERS

- Changes in protein and nucleic acid metabolism in baby hamster kidney cells infected with foot-and-mouth disease virus. 18308

HAY

- Stimulation of *Sclerotium rolfsii* and its antagonists by volatile components of alfalfa hay. (Abstract). 18021
- Notice of filing of petition regarding pesticide chemicals. 18388

HEAD

- Electron microscope studies of some cephalic structures of *Xiphinema americanum*. 18142

HEAD SMUT (CORN)

- Chemical control of corn head smut. 18062

HEART

- The effect of exposure to dieldrin on avoidance response extinction and conditioned heart rate in sheep. 18196

HEART RATE

- The effect of exposure to dieldrin on avoidance response extinction and conditioned heart rate in sheep. 18196

HEAT

- Engineering and biological aspects of designing and using a selective flame weeder. 18493

HELICOPTERS

- Helicopter application of phytoactin to whitebark pine. (Abstract). 17958

HELIOTHIS

- Investigations on the *Heliothis* nuclear polyhedrosis virus and its development as a biological control agent. 17779

- Studies of the suitability of certain *Heliothis* spp. as a host for *Cardiochiles nigricipes* Vierick. 18141

HELIOTHIS VIRESCENS

- Some effects of gamma radiation on the tobacco budworm *Heliothis virescens* (Fabricius). 17818

- Egg and larval development of *Cardiochiles nigricipes*. 17855

- A bioassay technique for screening feeding stimulants for larvae of tobacco budworm. 18096

HELIOTHIS ZEA

- Role of photoperiod, temperature, and injury in induction and termination of the pupal diapause of *Heliothis zea* (Boddie). 17877

HELMINTHIASIS

- The infection of *Boophilus microplus* with *Babesia bigemina*. 17795

- Biology of vector-associated diseases in Vietnam. 17913

- Quantitative studies on the kinetics of establishment and expulsion of intestinal nematode populations in susceptible and immune hosts. *Nippostrongylus brasiliensis* in the rat. 18364

- Studies on the spring phenomenon in ovine helminthiasis. I. Spring rise in stabled sheep. 18372

- Helminths as vehicles and synergists of microbial infections. 18376

HELMINTHOSPORIUM

- The effect of disinfection on cereal seeds determined in laboratory experiments and emergence tests in soil. 17924

HELMINTHOSPORIUM CARBONUM

- Active uptake of *Helminthosporium carbonum* toxin and its effect on CO₂ dark fixation by corn. (Abstract). 18453

HELMINTHOSPORIUM SOROKINIANUM

- Stand loss of small grains in Florida. 18057

HELMINTHOSPORIUM TURCICUM

- Phytoalexin production in corn resistant to *Helminthosporium turcicum*. 18020

HELMINTHOSPORIUM VAGANS

- Low light intensity promotes melting out of bluegrass. (Abstract). 18026

- The interrelationships of *Rhizoctonia solani* and *Helminthosporium vagans*, nitrogen, and variety on alkaloids in *Festuca arundinacea*. (Abstract). 18443

HELMINTHS

- Anthelmintic activity of some carbamate derivatives. 18374

HEMAGGLUTINATION

- Avian adeno-like viruses- Characterization and comparison of seven isolates. 18224

HEMAGGLUTINATION-INHIBITION TEST

- California-encephalitis-group viruses in Florida rabbits: Report of experimental and sentinel studies. 18265

HEMATOLOGY

- Some studies on the pathogenesis and epizootiology of epizootic hemorrhagic disease of deer. 18340

HEMATOPOIETIC SYSTEM

- Effects of genetic cellular resistance on cell transformation and virus replication in chicken hematopoietic cell cultures infected with avian myeloblastosis virus (BAI-0A). 18295

HEMEL

- Metabolism of C14-labeled hemel in male house flies. 17798

HEMIPTERA

- Hemiptera associated with pig carrion. 17764

HEMOPHILIA

- Correction: Hemophilia-like disease of swine: Cytogenetic studies. 18181

- Hemophilia-like disease of swine: Cytogenetic studies. 18223

HEMPA

- Chemical sterilization of the stable fly *Stomoxys calcitrans* (Linne), with metepa and hempa. 17797

HERBICIDES

- Evaluation of weed control treatments in field-grown tobacco. 18158

- Weeds in agronomic crops. Field corn, soybeans. 18159

- Growth, development and control of wild radish. 18162

- Ornamentals. 18164

- Fencerow weed control made easy. 18165

- Extermination of *Eichhornia azurea* Kunth, *Aguape de cordao*, on the Ribeira river by means of herbicide applications. 18166

- Forage crops, small grains. 18167

- Chemical control of nutsedge (*Cyperus rotundus* L.) and the metabolism of 3,6-dichloro-O-anisic acid (dicamba). 18169

- Aquatic weeds. 18170

- Forestry. 18172

- Vegetable crops. IV. Beans, sweet corn, tomatoes, rhubarb. 18173

- Herbaceous annual and perennial weeds. 18174

- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. Diuron. 18396

- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. Trifluralin. 18398

- Red pine needle structure. 18451

- Herbicide composition and method. Patent 3,407,056. 18471

- Amino acid-(phenylazo)-phenyl derivatives. xX-III. investigation of the phytotoxic effect of the antipodes of alanine and phenylalanine-4-(phenylazo)-phenylamides against various plant species. 18472

- The study of the effect of amitrol on the respiration and activity of some enzymes in poppy plants (*Papaver somniferum* L.). 18479

SUBJECT INDEX

HEREDITARY DISEASES

- The effect of hormonal herbicides on the radical buds of *Cirsium arvense* scop. 18480
- HEREDITARY DISEASES**
Oncogenesis in the (tu) y2v;vg strain of *Drosophila melanogaster*. 17787
- HERPES SIMPLEX**
The effect of trauma on production of herpes interferon in guinea pigs. 18331
- HETEROCYCLIC COMPOUNDS**
Heterocyclically substituted monohalogeno-1,3,5-triazines. Patent 3,407,201. 18490
- HETERODERA ROSTOCHIENSIS**
The effect of ultra-violet radiation on the invasion, survival and fertility of larvae of *Heterodera rostochiensis*. 18136
The yield of potatoes resistant to *Heterodera rostochiensis* on infested land. 18140
The effect of environment on sex determination in *Heterodera rostochiensis*. 18154
- HETERODERA SCHACHTII**
Gamma irradiation of *Heterodera schachtii*. 18152
- HETERODERA SCHACTII**
The effect of ultra-violet radiation on the invasion, survival and fertility of larvae of *Heterodera rostochiensis*. 18136
- HETERODERA TABACUM**
Injury to *Heterodera tabacum* by high soil temperatures. (Abstract). 18143
- HEVEA BRASILIENSIS**
Patch canker of *Hevea brasiliensis* caused by *Phytophthora palmivora*. 17967
Effects of plant growth regulators and other compounds on flow of latex in *Hevea brasiliensis*. 18421
- HEXANE**
Note on the determination of carbaryl residues in hen skin. 18406
- HIBERNATION**
On cold resistance of the pea aphid *Acyrtosiphon pisum* Harr (Homoptera, Aphididae). 17869
Life history of the looper *Phigalia titea* in Virginia. 17889
Reducing spring discharge of *Venturia inaequalis* ascospores by composting overwintering leaves. 17929
A temperature study of the overwintering site of the sheep bot fly *Oestrus ovis* L. 18373
- HISTAMINE**
Histidine decarboxylase in strains of *Escherichia coli* isolated from normal swine and swine with edema disease and enteric disorders. 18307
- HISTIDINE**
Nucleoprotein synthesis during metamorphosis in *Drosophila virilis*. 17872
- HISTIDINE DECARBOXYLASE**
Histidine decarboxylase in strains of *Escherichia coli* isolated from normal swine and swine with edema disease and enteric disorders. 18307
- HISTOLOGY**
Studies on the biological properties of *Toxoplasma gondii* in the body of insects, using *Pediculus humanus* L. as test animals. 17812
Quantitative histology of *Melampsora lini* resistance in flax. (Abstract). 17941

- Pathological changes of acute Newcastle disease in an outbreak in Miyazaki Prefecture with special reference to those of the cloaca. 18268
- Histopathological aids to the diagnosis of certain poultry diseases. 18284
- Experimental production of rheumatoid arthritis of swine: Physiopathologic changes of tissues. 18319
- The fine structure of the tegument of *Diphyllobothrium latum* (L.). A comparison of the plerocercoid and adult stages. 18356
- Studies on parasitic granuloma in the dog. 18365
- Effect of ration modifications on aflatoxicosis in the rat. 18382
- HISTOPATHOLOGY**
Mycotic abortion in ewes produced by *Aspergillus fumigatus*: pathologic changes. 18184
- HOG CHOLERA**
Helminths as vehicles and synergists of microbial infections. 18376
- HOG CHOLERA VIRUS**
Effects of attenuated hog cholera virus in pregnant swine at various stages of gestation. 18230
Hog cholera: Replication of hog cholera virus in tissue culture with cytopathic effect. 18231
Hog cholera: Safety and protection studies with photodynamically inactivated hog cholera virus. 18232
Electron optical and buoyant density studies of hog cholera virus. 18285
A fluorescent micro-plaque assay for hog cholera virus. Localization of infection with homologous antiserum. 18291
- HOMOEOSOMA ELECTELLUM**
Chemical control of the sunflower moth on sunflowers. 18123
- HOMOGENIZATION**
The response of various tissues in neonate calves to bovine papilloma virus (BPV). 18251
- HOMOPTERA**
Salivary chromosome-like structure of a Coccid chromosome. 17903
- HORMONES**
Effects of juvenile hormone on protein synthesis during the metamorphosis of the polyphemus silkworm. 17788
Tyrosine metabolism and its hormonal control after eclosion in the adult fleshfly *Sarcophaga bullata* Parker (Diptera: Sarcophagidae). 17879
Actions of vitamin D3 and sex hormones on calcium metabolism of bone in birds, particularly in hens. 18226
- HORSES**
Behavior of equine infectious anemia virus in cell culture and development of a diagnostic test for the disease. 18240
The equine respiratory disease syndrome in the Pacific Northwest. 18272
The use of polyvalent inactivated vaccine therapeutically against equine influenza. 18278
Animal sentinels in a statewide arthropod-borne encephalitis surveillance program. 18298

HOST INDEXING (PLANTS)

- The presence of tristeza virus in certain species of citrus in Cyprus. 18042

HOOT WATER TREATMENT (PLANTS)

- Control of endo- and ecto-parasitic nematodes in turf by hot-water treatments. 18139

HOUSEHOLD INSECTS

- Let's talk about the advantages of bait. 18774
Proposed federal Formosan termite quarantine safeguards. Buyer, seller. 18378

HUMAN DISEASES

- Studies of the epidemiology of arthropod-borne virus infections at Mitchell River Mission, Cape York Peninsula, north Queensland. II. Arbovirus infections of mosquitoes, man, and domestic fowls, 1963-1966. 17910
Helminths as vehicles and synergists of microbial infections. 18376
Microbiology. Gastrointestinal outbreaks. 18392

HYMIDITY

- An improved incubator for insects for operation above room temperature and relative humidity. 17734
Field and laboratory studies on the ecology and morphology of *Nabis americanus* Carayon and its parasites in California. 17834
The influence of temperature and humidity on the development of *Tenebrio molitor* L. 17850
Rearing stored product insects for laboratory studies: Six species of moths. 17887
Pyrethrins-piperonyl butoxide applied as a fog in an empty grain bin. 17897
Comparative life histories of chlordane-resistant and nonresistant German cockroaches. 17901
The relation of rainfall, relative humidity, and temperature to late blight of potato in Sedes, Sindos-Lahanokipi of Nomos Thessaloniki. 17925
Races of *Puccinia polysora* in Nigeria. 18015
Factors influencing aflatoxin accumulation in peanut kernels and the associated mycoflora. 18043
Loss of phorate from a granular formulation applied in the soil. 18110
Stomatal movements; a yearly rhythm. 18473

HYDROCARBONS

- The effect of exposure to dieldrin on avoidance response extinction and conditioned heart rate in sheep. 18196

HYDROGEN-ION CONCENTRATION

- Bionomics of the mosquito *Anopheles franciscanus* McCracken in California. 17783
Sub-units of acid phosphatase-I in *Drosophila melanogaster*: Reversible dissociation in vitro. 17862
Oxalate metabolism in sheep and its effect on the anion-cation balance. 18188
Manganese toxicity in celery. 18413

HYDROLYSIS

- Enzymatic hydrolysis of the encysted parasporale of *Bacillus thuringiensis* by *Bombyx mori* L. proteases. 17852
Comparison of metabolites of progesterone-4-14C in urine from a nonpregnant domestic sow. 18190

SUBJECT INDEX

INJECTIONS

HYDROPONICS

- Infrared studies of ethylene chlorohydrin. 18486

HYDROXYLAMINE

- Influence of nitrite and hydroxylamine on performance and vitamin A and carotene metabolism of ruminants. 18183

HYGIENE

- The toxicity and distribution of mercury. 18410

HYLOBIUS PALES

- A description of the pupa of the pales weevil, *Hylobius pales*, and a method for identifying its sex. 17773

HYMENOLEPIS DIMINUTA

- Experimental infection of gnotobiotic *Tenebrio molitor* and white rats with *Hymenolepis diminuta* (Cestoda: Cyclophyllidae). 18363

HYPERA POSTICA

- Ecological characteristics of the diapause of the Phytomyza of the Luzerne *Hypera variabilis*. (Col. Curculionidae). 17817
Winter oviposition by the alfalfa weevil in Virginia. 17900

HYPERGAMMAGLOBULINEMIA

- Experimental production of rheumatoid arthritis of swine: Physiopathologic changes of tissues. 18319

HYPERGLYCEMIA

- Hyperglycemia induced by 5-hydroxytryptamin in *Achatina fulica* (gastropod mollusca). 18178

HYPODERMA

- Further evaluation of animal systemic insecticides, 1967. 18347

HYPOXYLON

- Chemical treatment of Hypoxylon cankers on aspen. (Abstract). 17959

HYPOPERINE

- Control of endo- and ecto-parasitic nematodes in turf by hot-water treatments. 18139

ICERYA AEGYPTIACA

- Salivary chromosome-like structure of a Coccid chromosome. 17903

ICHORONYSSUS

- A new species of the gamasid mite *Ichoronyssus mirabilis* Senotrusova et Tagiltsev sp. n. (Acariformes, Gamasoidea) from whiskered millers of the Zaisan hollow. 17769

IMMUNITY

- Results concerning humoral immunity of *Pyrrhocoris apterus* L. and *Galleria mellonella* F. 17842

- Cellular immune responses of insects to foreign tissue implants. 17871

- The effect of blood-feeding on the longevity of radiationresistant yellow-fever mosquitoes. 17885

- Relationships among races of *Pyricularia oryzae*. (Abstract). 18016

- Lack of cytoplasmic inheritance of alfalfa resistance to the spotted alfalfa aphid. 18099

- Methyl mercury compounds in fish. 18199

- One-year immunity in dogs vaccinated with high egg-passage rabies virus grown on established dog kidney cell line. 18222

- Immunochemical and biochemical interrelationship of *Streptococcus agalactiae* to the bovine. 18238

- Duck plague. 18263

- The epizootiological importance of foot-and-mouth disease carriers. I. Experimentally produced foot-and-mouth disease carriers in susceptible and immune cattle. 18326

- Experimental bluetongue disease in white-tailed deer. 18336

- Stained monolayer test: a color test in disposable plastic trays for titrating transmissible gastroenteritis virus and neutralizing antibodies. 18343

- Resistance of cattle to the tick *Boophilus microplus* (Canestrini). II. Stages of the life cycle of the parasite against which resistance is manifest. 18351

- Quantitative studies on the kinetics of establishment and expulsion of intestinal nematode populations in susceptible and immune hosts. *Nippostrongylus brasiliensis* in the rat. 18364

- A method for evaluation of vaccines containing *Pasteurella multocida*. 18380

- Estimation of radiation resistance values of microorganisms in food products. 18383

- Insecticide residues in pest control. 18401

IMMUNIZATION

- Avirulent mutant of a strain of ornithosis agent obtained by gamma irradiation. 18195

- Further studies on the use of ERA rabies vaccine in domestic animals. 18201

- Hog cholera: Safety and protection studies with photodynamically inactivated hog cholera virus. 18232

- Artificially induced immunity to enzootic abortion in ewes. 18246

- Serologic response of swine to *Escherichia coli* antigens. 18273

- Foot-and-mouth disease in swine. I. The immune response of swine to chemically-treated and non-treated foot-and-mouth disease virus. 18288

- Immunization of foxes with inactivated virus rabies vaccine. 18315

- A method for evaluation of vaccines containing *Pasteurella multocida*. 18380

IMMUNODIAGNOSIS

- Characterization of bovine viral diarrhea viruses by their interactions with susceptible host cells. 18243

IMMUNOFLUORESCENCE

- Pathology and immunofluorescence studies of bovine mycoplasma mastitis. 18267

IMMUNOLOGY

- Studies on selection in natural and experimental populations of *Drosophila pseudoobscura*. 17781

- Effect of aflatoxin on serum protein fractions of day-old ducklings. 18191

- Antibody response to immunization in experimental Salmonellosis. 18269

- Experimental transmission of two canine neoplasms: Lymphosarcoma and mast cell leukemia. 18310

IMPORT CONTROL

- Interceptions of plant diseases through the port of Bombay. 18014

INCLUSION BODIES

- A study of the nuclear polyhedrosis virus on the beet armyworm, *Spodoptera exigua* (Hubner). 17848

- with emphasis on stability, pathogenicity and histopathology. 17837

- Transmission of salmon poisoning disease to dogs by *Nanophyetus salmincola* eggs. 18301

INCUBATORS

- An improved incubator for insects for operation above room temperature and relative humidity. 17734

INDEXING

- New Zealand Noctuidae (Lepidoptera): Summary of known host plants and a bibliography relevant to the biology of the group. 17749

INDOLEACETIC ACID

- The role of IAA in host reaction to different isolates of *Phytophthora cactorum*. (Abstract). 17955

- Auxin and crown gall tumor initiation. (Abstract). 18023

- Auxin-induced elimination of a protein in bean hypocotyl. 18470

- Effect of 3-indoleacetic acid on phospholipid membrane components of *Avena coleoptiles*. 18481

INDUSTRY

- The impact of fungi on man. QK603.OT3. 17934

- Distribution of mercury compounds in fish and birds. 18180

- Effects on groundwater. Municipal sources. 18390

INFECTIOUS BOVINE RHINOTRACHEITIS VIRUS

- Acute infectious bovine rhinotracheitis and salmonellosis in a dairy herd. 18344

INFECTIOUS DISEASES

- The summer biology of *Puccinia striiformis* in southeastern Washington. I. Induction of infection during the summer. 18072

- Mycoplasma meleagridis* ('N' strain mycoplasma - PPL0): Relationship of air sac lesions and isolations in day old turkeys (*Meleagridis Gallopavo*). 18211

- Stained monolayer test: a color test in disposable plastic trays for titrating transmissible gastroenteritis virus and neutralizing antibodies. 18343

- Helminths as vehicles and synergists of microbial infections. 18376

INFLAMMATION

- Seminal vesiculitis syndrome: Lesions in genital organs of young bulls. 18208

INFRARED SPECTRA

- Isolation of a new toxin from cultures of *Aspergillus flavus*. 18416

- Plant growth regulations in *Ditylenchus dipsaci*, *Ditylenchus trifurmis* and host tissues. 18437

- Infrared studies of ethylene chlorohydrin. 18486

INJECTIONS

- Selective recovery of volatile products from house flies treated with radioactive insecticide chemicals and synergists. 17796

- Metabolism of C14-labeled hemel in male house flies. 17798

- Results concerning humoral immunity of *Pyrrhocoris apterus* L. and *Galleria mellonella* F. 17842

- Effect of the chemosterilant metepa on the housefly, *Musca domestica* L. 17848

SUBJECT INDEX

INJURIES

- Race buildup of *Xanthomonas malvacearum* on cotton in southeast Missouri. 17928
- Local lesion development in Turkish tobacco leaves heated after inoculation with tobacco mosaic virus. (Abstract). 17983
- Effect of soil fungicides on development of fungi in soil and on kernels of groundnut. 18003
- Studies on the effects of Hg(II) and sucrose on the mechanical transmission of tobacco mosaic virus ribonucleic acid to pinto bean (*Phaseolus vulgaris* L.). 18011
- Alternaria tenuis* on *Antirrhinum*. 18033
- Additional information on the pathogenicity of *Sclerotinia lagerbergii*. 18065
- Effect of MCPA on lettuce pre-inoculated with lettuce mosaic virus. 18075
- Natural acquisition compared with mechanical inoculation of six-spotted leafhoppers for transmission of the oat blue dwarf virus. (Abstract). 18085
- Control of the elm leaf beetle in Arizona. 18128
- Distribution of mercury compounds in fish and birds. 18180
- Mycotic abortion in ewes produced by *Aspergillus fumigatus*: pathologic changes. 18184
- Response of beef cows to exogenous progesterone and estradiol at various stages postpartum. 18192
- Avirulent mutant of a strain of ornithosis agent obtained by gamma irradiation. 18195
- Cystic ovarian disease in dairy cattle: With special reference to its treatment using a combination of Chorionic gonadotrophin and progesterone. 18200
- Experimental colibacillosis and the development of carries in laying hens. 18206
- Hog cholera: Safety and protection studies with photodynamically inactivated hog cholera virus. 18232
- Water, electrolyte, and acid-base alterations in experimental canine leptospirosis. 18244
- A case of porcine endocarditis associated with *Staphylococcus aureus*. 18248
- Clostridium perfringens* type A infection of ligated intestinal loops in lambs. 18255
- California-encephalitis-group viruses in Florida rabbits: Report of experimental and sentinel studies. 18265
- Transmission of salmon poisoning disease to dogs by *Nanophyetus salmincola* eggs. 18301
- Immunization of foxes with inactivated virus rabies vaccine. 18315
- Resistance of cattle to the tick *Boophilus microplus* (Canestrini). II. Stages of the life cycle of the parasite against which resistance is manifest. 18351
- Isolation of a new toxin from cultures of *Aspergillus flavus*. 18416

INJURIES

- Role of photoperiod, temperature, and injury in induction and termination of the pupal diapause of *Heliothis zea* (Boddie). 17877

- The effect of trauma on production of herpes interferon in guinea pigs. 18331

INORGANIC COMPOUNDS

- Analytical problems: Mercury in the general environment. 18408

- Inorganic composition and microscopy of citrus roots grown under several copper and soil amendment conditions. 18428

INOSITOL

- Nutritional requirements of a tomato tissue culture: Growth promoting factors from peas. 18478

INSECT ADAPTATION

- Notes on deathwatch beetles (Coleoptera). 17821

INSECT ANATOMY

- Reproduction of some poorly known species of Blattaria. 17765

- Mechanism of locust jumping. 17793

- Reproductive behavior of the potato tuberworm, *Phthorimaea operculella* (Zeller), (Lepidoptera: Gelechiidae) and the effect of the chemosterilant metepa. 17836

- Some information on *Triatoma spinolai* Porter 1934, with a study of the external genitalia (Hemiptera, Reduviidae). 17853

INSECT BEHAVIOR

- The foraging behavior of honeybees (*Apis mellifera*) and bumblebees (*Bombus* Spp.) on blackcurrant (*Ribes nigrum*), raspberry (*Rubus idaeus*) and strawberry (*Fragaria x ananassa*) flowers. 17732

- Habitat selection by *Lipara lucens* Mg. (Diptera, Chloropidae) and its survival value. 17761

- The leaf cutting ant, *Atta capiguara*, curse of the pastures. 17780

- Field studies of sex attraction in the boll weevil. 17790

- The phylogenetic development of food selection in certain orthopteroids. 17825

- Biting in Orthoptera and their allies. 17826

- The molting behavior of the black widow spider, *Latrodectus mactans*. 17830

- Reproductive behavior of the potato tuberworm, *Phthorimaea operculella* (Zeller), (Lepidoptera: Gelechiidae) and the effect of the chemosterilant metepa. 17836

- Preliminary observations on the effect of alcohol and oil films on the oviposition of *Culex pipiens quinquefasciatus* (Say). 17844

- The flight range of *Simulium damnosum*. 17854

- A red dye to evaluate bait formulations and to mass mark field populations of boll weevils. 17856

- Pre-imaginal conditioning in *Drosophila*. 17858

- Food distribution within colonies of the Argentine ant, *Iridomyrmex humilis* (Mayr). 17859

- Some aspects of mating behavior in butterflies. 17864

- Retraction of the claim that host pregnancy affects pupal production by the tsetse fly. 17867

- The development of *Theileria parva* in the salivary glands of the tick, *Rhipicephalus appendiculatus*. 17873

- A possible marker for European corn borer moths. 17882

- Some comparative data on ecology and behaviour of Staphylinid beetles (Coleoptera, Staphylinidae). 17890

- Comparative life histories of chlordane-resistant and nonresistant German cockroaches. 17901

- The Columbian timber beetle, *Corthylus columbianus* (Coleoptera: Scolytidae). VIII. Artifacts and characteristics of the host tree. 18129

INSECT BIOCHEMISTRY

- Content and synthesis of gamma aminobutyric acid in the larval brain of *Drosophila melanogaster*. 17799

- Drosophila* alcohol dehydrogenase isozymes: identity of molecular size. 17838

INSECT BIOLOGY

- Biological and ecological studies on *Caloglyphus* mite (Acarina: Acaridae) associated with Scarabaeidae. 17743

- Habitat selection by *Lipara lucens* Mg. (Diptera, Chloropidae) and its survival value. 17761

- Studies of caste differentiation in *Myrmica rubra* L. 9. Maternal environment and the caste bias of larvae. 17791

- Studies on the morphology and biology of *Lecanium fletcheri* Kell. (Homoptera, Coccoidea) and related species. 17813

- Effects of mold inhibitors in larval diet on the biology of the cabbage looper. 17847

- About lepidopterous immatures. 17857

- Rearing stored product insects for laboratory studies: Six species of moths. 17887

- Biology of the elm leaf beetle in southern Arizona. 17898

- Survival of the balsam woolly aphid on *Abies* logs. 18084

INSECT CAGES

- Simple field and laboratory method for recovering living ticks (Ixodoidea) from hosts. 17733

- Chemical sterilization of the stable fly *Stomoxys calcitrans* (Linne), with metepa and hempa. 17797

- A simplified field cage for trapping pink bull-worm adults. 17819

- Medium and techniques for mass rearing the red-banded leaf roller. 17843

- Black vine weevil larval damage to concord grape roots at different population densities. 18088

INSECT COLLECTING EQUIPMENT

- Catch of insects at different heights in traps equipped with blacklight lamps. 17736

- Alate aphid species captured in yellow pans. 17806

- A simplified field cage for trapping pink bull-worm adults. 17819

- Meteorological factors affecting the activity of night flying Macro-Lepidoptera. 17832

- Interception of apple maggot adults on colored traps in an orchard. 17860

SUBJECT INDEX

INSECT GENETICS

Chambers for collecting and observing single pupae of three stored-product moths. 17883

INSECT CONTROL

Circadian emergence rhythm of a tropical scolytid, *Xyleborus ferrugineus*. 17767

The leaf cutting ant, *Atta capiguara*, curse of the pastures. 17780

Spider populations in grain sorghums. 17784

About lepidopterous immatures. 17857

Actinomycin D-induced phenocopies in *Drosophila melanogaster* and their relevance to differential gene transcription. The genetic basis of actinomycin D-induced preferential killing of *Drosophila melanogaster* males. 17907

Special equipment in the Box Elder County Mosquito and Fly Abatement District. 17911

Culicoides control in the Canal Zone by water management. 17912

Effects of early-, mid-, and late-season infestations of two-spotted spider mites on the yield of cotton. 18094

Studies of the insect complex affecting seed production of ponderosa pine in California. 18101

Improved technique to control shot hole borers and bark beetles. 18106

Attack of the black turpentine beetle on roots of slash pines. 18118

Anthrenus melanocerus as a predator of the green peach aphid on sugar beets and broccoli. 18121

Egg distribution as a factor in suppressing the green peach aphid by pruning. 18122

Cattle-mosquito study begins in south Texas. 18352

Proposed federal Formosan termite quarantine safeguards. Buyer, seller. 18378

Pesticides, their use and misuse. 18495

INSECT CULTURES

A comparative study of salivary gland chromosome asynapsis in tumorigenic and closely related non-tumorigenic strains of *Drosophila melanogaster*. 17804

INSECT DISEASES

Oncogenesis in the (tu) y2v;vg strain of *Drosophila melanogaster*. 17787

Preliminary evaluation of a granulosis virus for control of the codling moth. 17822

A study of the nuclear polyhedrosis virus on the beet armyworm, *Spodoptera exigua* (Hubner), with emphasis on stability, pathogenicity and histopathology. 17837

Results concerning humoral immunity of *Pyrrhocoris apterus* L. and *Galleria mellonella* F. 17842

Ethylene oxide for the control of American foulbrood in honey bees. 17881

Influence of a virus disease on the hemocytic antitryptogramic reactions in insects. 17893

Introducing and establishing the noninclusion virus of the citrus red mite in citrus groves. 18117

INSECT DISSEMINATION

A review of recent literature on the host plant range of the genus *Liriomyza* mik (Diptera: Agromyzidae) in the Continental United States and Hawaii, excluding Alaska. 17770

Mechanical and electrical activity in the indirect flight muscles of the honey bee. 17820

Spread of the boll weevil by drainage water and air currents. 17824

The flight range of *Simulium damnosum*. 17854

Techniques of marking insects with micronized fluorescent dust with especial emphasis on marking millions of *Lygus hesperus* for dispersal studies. 17886

Studies of the epidemiology of arthropod-borne virus infections at Mitchell River mission, Cape York Peninsula, north Queensland. I. Mosquito collections, 1963-1966. 17914

Survival of the balsam woolly aphid on *Abies* logs. 18084

Occurrence of fiber containing fluorescent spots associated with *Aspergillus flavus* boll rot in the U. S. cotton crop of 1967. 18108

Western corn rootworm egg distribution and adult emergence under two corn tillage systems. 18111

INSECT ECOLOGY

On a tenth new *Sphaeroceraspis* of the central African forest (Hom. Coccoidea Diaspidini). 17740

Notes on the chorology and ecology of Araneidae from the Alban Hills (Araneae). 17741

A contribution to the ecology of the May-fly *Palingenia sublongicauda* Tshern. In the Volga delta. 17754

Habitat selection by *Lipara lucens* Mg. (Diptera, Chloropidae) and its survival value. 17761

Notes on raising Lepidoptera in Meurthe and Moselle. 17763

On the distribution of *Ixodes angustus* Neum. (Ixodidae). 17768

A preliminary report of the mosquitoes in the Gilgit Agency area. 17772

Bionomics of the mosquito *Anopheles franciscanus* Mcracken in California. 17783

A comparative study of salivary gland chromosome asynapsis in tumorigenic and closely related non-tumorigenic strains of *Drosophila melanogaster*. 17804

Ecological characteristics of the diapause of the Phytonome of the Luzerne *Hypera variabilis*. (Col. Curculionidae). 17817

Field and laboratory studies on the ecology and morphology of *Nabis americana* Carayon and its parasites in California. 17834

Larch sawfly survival in relation to water levels and microtopography in tamarak bogs. 17839

Some comparative data on ecology and behaviour of Staphylinid beetles (Coleoptera, Staphylinidae). 17890

Studies of the epidemiology of arthropod-borne virus infections at Mitchell River Mission, Cape York Peninsula, north Queensland. II. Arbovirus

infections of mosquitoes, man, and domestic fowls, 1963-1966. 17910

INSECT EGGS

Studies of caste differentiation in *Myrmica rubra* L. 9. Maternal environment and the caste bias of larvae. 17791

Temperature relationships of the development of northern corn rootworm eggs. 17802

The influence of temperature and humidity on the development of *Tenebrio molitor* L. 17850

Vital staining of insect eggs by incorporation of trypan blue. 17878

Improvement of a method for culturing the eggs of the Phasmid *Carausius morosus* Br. deprived of the chorion. 17894

Winter oviposition by the alfalfa weevil in Virginia. 17900

Black vine weevil larval damage to concord grape roots at different population densities. 18088

Western corn rootworm egg distribution and adult emergence under two corn tillage systems. 18111

Egg distribution as a factor in suppressing the green peach aphid by pruning. 18122

INSECT EVOLUTION

Studies on selection in natural and experimental populations of *Drosophila pseudoobscura*. 17781

Some comparative data on ecology and behaviour of Staphylinid beetles (Coleoptera, Staphylinidae). 17890

INSECT FLIGHT

Catch of insects at different heights in traps equipped with blacklight lamps. 17736

Ecology of insect swarms. V. Movement of individual midges, *Anarete pritchardi*, within a swarm. 17801

Mechanical and electrical activity in the indirect flight muscles of the honey bee. 17820

Costelytra zealandica (White) sex attraction. 17845

The flight range of *Simulium damnosum*. 17854

Aphid vectors of barley yellow dwarf virus in blacklight traps in eastern United States. 18089

INSECT GENETICS

Studies on selection in natural and experimental populations of *Drosophila pseudoobscura*. 17781

A comparative study of salivary gland chromosome asynapsis in tumorigenic and closely related non-tumorigenic strains of *Drosophila melanogaster*. 17804

Tests of genetic systems for the study of the effects of dNA in *Drosophila melanogaster*. 17811

Electrophoretic variation of proteinase in the digestive juice of the silkworm, *Bombyx mori* L. 17815

The phylogenetic development of food selection in certain orthopteroids. 17825

Sub-units of acid phosphatase-I in *Drosophila melanogaster*: Reversible dissociation in vitro. 17862

Physiological genetics of melanotic tumors in *Drosophila melanogaster*. V. Amino acid metabolism and tumor formation in the tu bw; st su-tu strain. 17902

SUBJECT INDEX

INSECT HISTOLOGY

- Salivary chromosome-like structure of a Coccid chromosome. 17903
- Gamma-ray-induced mutations in *Drosophila melanogaster* oocytes: The phenomenon of dose rate. 17904
- Mitotic chromosomes of *Glossina pallidipes* Austen. 17905
- Tetraploid females in the hymenopteron, *Mormoniella*. 17906
- Developmental characteristics of five lethal mutants of *Drosophila melanogaster*. 17908
- Meiotic drive and visible polarity in *Drosophila* spermatocytes. 17909

INSECT HISTOLOGY

- On the innervation of the prothoracic glands in *Papilio demoleus* L. (Lepidoptera). 17884
- Life history of the looper *Phigalia titea* in Virginia. 17889

INSECT IDENTIFICATION

- A revision of the oriental species of *Palearista* Townsend (Diptera: Tachinidae, Sturmiini). 17744
- New Zealand Noctuidae (Lepidoptera): Summary of known host plants and a bibliography relevant to the biology of the group. 17749
- On morphology of larvae of the III instar in synanthropic species of flies from the genus *Hydrotaea* R.D. (Diptera, Muscidae). 17758
- On larvae of Hispinae (Coleoptera, Chrysomelidae) of the fauna of the USSR. 17759
- A description of the pupa of the pales weevil, *Hyllobius pales*, and a method for identifying its sex. 17773
- Siphona kangwayei* n. sp., a blood sucking fly from Uganda (Diptera: Muscidae). 17776
- Studies on the morphology and biology of *Lecanium fletcheri* Ckll. (Homoptera, Coccoidea) and related species. 17813
- Parthenogenesis in gum emperor moth *Antheraea eucalypti* (Scott). 17840
- On the *Sphodromantis* of the species *viridis* from northwest Africa. 17849

INSECT METABOLISM

- Physiological genetics of melanotic tumors in *Drosophila melanogaster*. V. Amino acid metabolism and tumor formation in the tu bw; st su-tu strain. 17902

INSECT MIGRATION

- The flight range of *Simulium damnosum*. 17854
- A possible marker for European corn borer moths. 17882
- Techniques of marking insects with micronized fluorescent dust with especial emphasis on marking millions of *Lygus hesperus* for dispersal studies. 17886

INSECT MORPHOLOGY

- Parasitic and free-living cycles in entomogenous nematodes of the genus *Deladenus*. 17731
- A revision of the oriental species of *Palearista* Townsend (Diptera: Tachinidae, Sturmiini). 17744
- On morphology of larvae of the III instar in synanthropic species of flies from the genus *Hydrotaea* R.D. (Diptera, Muscidae). 17758

Further studies on the effect of bovine diet on face fly development. 17766

The genera of African Lycaenidae (Lepidoptera: Rhopalocera). 17771

A prodrome of the genus *Orthopodomyia* (Diptera, Culicidae). 17775

The leaf cutting ant, *Atta capiguara*, curse of the pastures. 17780

Analysis of the development of oviducts and the developmental relations between oviducts and ovaries in *Drosophila virilis*. Part one: Development of oviducts under normal and experimental conditions. Part two: Analysis of alterations occurring in oviducts during imaginal life. 17782

Effects of juvenile hormone on protein synthesis during the metamorphosis of the polyphemus silkworm. 17788

The infection of *Boophilus microplus* with *Babesia bigemina*. 17795

On the biology of several Trechinae and Sphodrinae. (Insecta, Coleoptera). 17808

Studies on the morphology and biology of *Lecanium fletcheri* Ckll. (Homoptera, Coccoidea) and related species. 17813

Notes on deathwatch beetles (Coleoptera). 17821

Field and laboratory studies on the ecology and morphology of *Nabis americanoferus* Carayon and its parasites in California. 17834

On the *Sphodromantis* of the species *viridis* from northwest Africa. 17849

The influence of temperature and humidity on the development of *Tenebrio molitor* L. 17850

Functional degeneration of the venomous gland of *Apis* during the summer and winter. 17851

Egg and larval development of *Cardiochiles nigriceps*. 17855

About lepidopterous immatures. 17857

The development of *Theileria parva* in the salivary glands of the tick, *Rhipicephalus appendiculatus*. 17873

Role of photoperiod, temperature, and injury in induction and termination of the pupal diapause of *Heliothis zea* (Boddie). 17877

Sensillae on the antennae of blood-sucking biting midges (Diptera, Ceratopogonidae). 17880

Improvement of a method for culturing the eggs of the Phasid *Carausius morosus* Br. deprived of the chorion. 17894

Biology of the elm leaf beetle in southern Arizona. 17898

Comparative life histories of chlordane-resistant and nonresistant German cockroaches. 17901

Developmental characteristics of five lethal mutants of *Drosophila melanogaster*. 17908

Resistance of cattle to the tick *Boophilus microplus* (Canestrini). II. Stages of the life cycle of the parasite against which resistance is manifest. 18351

INSECT NUTRITION

Some observations on compulsory feeding of sandflies (Diptera, Phlebotominae) with the culture of leptomnads. 17778

INSECT OUTBREAKS

The Columbian timber beetle, *Corthylus columbianus* (Coleoptera: Scolytidae). VIII. Artifacts and characteristics of the host tree. 18129

INSECT PESTS

New Zealand Noctuidae (Lepidoptera): Summary of known host plants and a bibliography relevant to the biology of the group. 17749

Temperature relationships of the development of northern corn rootworm eggs. 17802

Preliminary evaluation of a granulosis virus for control of the codling moth. 17822

A sex pheromone from the citrus mealybug. 17828

Field tests of chemicals for control of the European corn borer. 17831

A study of the nuclear polyhedrosis virus on the beet armyworm, *Spodoptera exigua* (Hubner), with emphasis on stability, pathogenicity and histopathology. 17837

Comparison of application rates of some soil insecticides for control of western corn rootworm larvae in Missouri. 17866

Winter oviposition by the alfalfa weevil in Virginia. 17900

Systematic insecticide seed treatment tests on soybeans, bowling, c c. 18082

Aluminum foil and white polyethylene mulches to repel aphids and control watermelon mosaic. 18083

Survival of the balsam woolly aphid on *Abies* logs. 18084

Black vine weevil larval damage to concord grape roots at different population densities. 18088

Studies on a biological and a chemical method of controlling the dark rice field mosquito in Louisiana. 18090

Effects of early-, mid-, and late-season infestations of two-spotted spider mites on the yield of cotton. 18094

A bioassay technique for screening feeding stimulants for larvae of tobacco budworm. 18096

Lack of cytoplasmic inheritance of alfalfa resistance to the spotted alfalfa aphid. 18099

Oviposition preferences of western corn rootworms for various soil surface conditions. 18100

Studies of the insect complex affecting seed production of ponderosa pine in California. 18101

Resistance in bermudagrass to the fall armyworm. 18104

Insect pests of Nigerian crops. 18105

Improved technique to control shot hole borers and bark beetles. 18106

Reinfestation of forest sites by the Texas leaf-cutting ant. 18107

Studies on hydrogen phosphide against the red flour beetle in a column of paddy. 18113

SUBJECT INDEX

INSECT TAXONOMY

- A medium for laboratory rearing of the peach tree and lesser peach tree borers. 18114
- Attack of the black turpentine beetle on roots of slash pines. 18118
- Peculiarities of development and harmful activity of the Hessian fly (*Mayetiola destructor* Say.) under conditions of irrigation. 18119
- Egg distribution as a factor in suppressing the green peach aphid by pruning. 18122
- Resistance of southern peas to the cowpea curculio. 18125
- Control of the elm leaf beetle in Arizona. 18128
- The Columbian timber beetle, *Corthylus columbianus* (Coleoptera: Scolytidae). VIII. Artifacts and characteristics of the host tree. 18129
- Horn fly control with coumaphos. 18349
- ### INSECT PHYSIOLOGY
- Activation of malathion by the locust bodywall. 17777
- Bionomics of the mosquito *Anopheles franciscanus* McCracken in California. 17783
- Photoinhibitory function of the dorsal ocelli in the phototactic reaction of the migratory locust *Locusta migratoria* L. 17786
- Mechanism of locust jumping. 17793
- A comparative study of salivary gland chromosome asynapsis in tumorigenic and closely related non-tumorigenic strains of *Drosophila melanogaster*. 17804
- Polygenic control of aldehyde oxidase and xanthine dehydrogenase in *Drosophila*. 17807
- On the biology of several Trechinae and Sphodrinae. (Insecta, Coleoptera). 17808
- The formation of the cuticular ridges in the larval pharynx of the blowfly (*Calliphora vicina* R.-D.). 17809
- Correction coefficients for prognosing the development of insects by sums of effective temperatures (*Agrotis segetum* Schiff taking of example). 17810
- Some effects of gamma radiation on the tobacco budworm *Heliothis virescens* (Fabricius). 17818
- Mechanical and electrical activity in the indirect flight muscles of the honey bee. 17820
- Biting in Orthoptera and their allies. 17826
- Studies on insect (*Periplaneta americana* L.) phosphofructokinase. 17827
- A sex pheromone from the citrus mealybug. 17828
- The molting behavior of the black widow spider, *Latrodectus mactans*. 17830
- Influence of the spectral composition of certain bands of visible and near visible radiation on diapause in the boll weevil. 17833
- Field and laboratory studies on the ecology and morphology of *Nabis americanus* Carayon and its parasites in California. 17834
- Data on the endocrine system of several Diplopoda, Oniscomorphes (Myriapoda). 17841
- Electrical activity in insect nerve cell bodies. 17846
- Effects of mold inhibitors in larval diet on the biology of the cabbage looper. 17847
- Functional degeneration of the venomous gland of *Apis* during the summer and winter. 17851
- Enzymatic hydrolysis of the encysted parasporale of *Bacillus thuringiensis* by *Bombyx mori* L. proteases. 17852
- The directions of the flow of food in the alimentary tract of the leafhopper *Euscelidius variegatus* KBM. (Jassidae). 17865
- Retraction of the claim that host pregnancy affects pupal production by the tsetse fly. 17867
- On cold resistance of the pea aphid *Acyrtosiphon pisum* Harr (Homoptera, Aphididae). 17869
- Cellular immune responses of insects to foreign tissue implants. 17871
- Aspartate aminotransferase in the pea aphid, *Acyrtosiphon pisum* (Harris). 17876
- Role of photoperiod, temperature, and injury in induction and termination of the pupal diapause of *Heliothis zea* (Boddie). 17877
- Tyrosine metabolism and its hormonal control after eclosion in the adult fleshfly *Sarcophaga bullata* Parker (Diptera: Sarcophagidae). 17879
- Sensillae on the antennae of blood-sucking biting midges (Diptera, Ceratopogonidae). 17880
- On the innervation of the prothoracic glands in *Papilio demoleus* L. (Lepidoptera). 17884
- Laboratory rearing of *Culex* (Melanoconion) portesi Senevet and Abonnenc. 17888
- On periodicity of gas exchange in ontogenesis of the Colorado beetle (*Leptinotarsa decemlineata* Say.). 17892
- Influence of a virus disease on the hemocytic anticyptogramic reactions in insects. 17893
- Improvement of a method for culturing the eggs of the Phasid *Carausius morosus* Br. deprived of the chorion. 17894
- On the tetrapyrrolic pigments, essential constituents of homochrome:coloration in *Oedipoda coerulescens* L. (Acridae, Orthoptera). 17895
- Physiological genetics of melanotic tumors in *Drosophila melanogaster*. V. Amino acid metabolism and tumor formation in the tu bw; st su-tu strain. 17902
- Morphological and physiological aspects of sporogony and oocyst viability in the protozoan parasites *Eimeria tenella* and *Eimeria stiedae* (Coccidia). 18419
- ### INSECT REARING
- Notes on raising Lepidoptera in Meurthe and Moselle. 17763
- Reproduction of some poorly known species of Blattaria. 17765
- Further studies on the effect of bovine diet on face fly development. 17766
- Bionomics of the mosquito *Anopheles franciscanus* McCracken in California. 17783
- Laboratory propagation of *Muscidifurax raptor* on face fly pupae. 17794
- Latest research plans on the problem of cockroach resistance. 17805
- The formation of the cuticular ridges in the larval pharynx of the blowfly (*Calliphora vicina* R.-D.). 17809
- Preliminary evaluation of a granulosis virus for control of the codling moth. 17822
- Difference in response of two strains of screw-worm flies to the male pheromone. 17823
- Parthenogenesis in gum emperor moth *Antheraea eucalypti* (Scott). 17840
- Medium and techniques for mass rearing the red-banded leaf roller. 17843
- Costelytra zealandica* (White) sex attraction. 17845
- Effects of mold inhibitors in larval diet on the biology of the cabbage looper. 17847
- Pre-imaginal conditioning in *Drosophila*. 17858
- Endogenous diurnal rhythm of pupation in a mosquito population. 17868
- The development of *Theileria parva* in the salivary glands of the tick, *Rhipicephalus appendiculatus*. 17873
- Rearing stored product insects for laboratory studies: Six species of moths. 17887
- Laboratory rearing of *Culex* (Melanoconion) portesi Senevet and Abonnenc. 17888
- Comparative life histories of chlordane-resistant and nonresistant German cockroaches. 17901
- A medium for laboratory rearing of the peach tree and lesser peach tree borers. 18114
- Introducing and establishing the noninclusion virus of the citrus red mite in citrus groves. 18117
- Role of host plant in production of winged forms by a green strain of pea aphid *Acyrtosiphon pisum*. 18120
- ### INSECT REPELLENTS
- Influence of repellency on the efficacy of blatticides. IV. Comparison of four cockroach species. 17814
- Aluminum foil and white polyethylene mulches to repel aphids and control watermelon mosaic. 18083
- ### INSECT RESPIRATION
- On periodicity of gas exchange in ontogenesis of the Colorado beetle (*Leptinotarsa decemlineata* Say.). 17892
- Improvement of a method for culturing the eggs of the Phasid *Carausius morosus* Br. deprived of the chorion. 17894
- ### INSECT TAXONOMY
- A new species of Harpactea from the Pontine Islands (Araneae, Dysderidae). 17737
- New Indian Thysanoptera. 17738
- New data concerning the ant genus *Camponotus* (Hymenoptera, Formicidae) from the USSR fauna. 17739
- On a tenth new *Sphaeroceraspis* of the central African forest (Hom. Coccoidea Diaspidini). 17740
- Notes on the chorology and ecology of Araneidae from the Alban Hills (Araneae). 17741

SUBJECT INDEX

INSECT TRAPS

- Neotropical Mirids, XCVIII: three new species of the tribes Bryocorini and Orthotylini (Hemiptera). 17742
- A revision of the oriental species of *Palexorista* Townsend (Diptera: Tachinidae, Sturmiini). 17744
- Erigonids from the Pontine Islands (Araneae: Erigonidae). 17745
- Larvae of click beetles of the genus *Idolus* Desbr. and position of this genus in the system Elateridae (Coleoptera). 17746
- Notes on Megalynidae (Hym. Ichneumonidae) and description of new species from Madagascar. 17751
- A new genus and two new species of mirid bugs (Heteroptera, Miridae) from the eastern regions of the USSR. 17755
- New species of *Culex* (Melanoconion). 17756
- A new genus and species of the phytophagous mite (Bryobiidae, Acariformes). 17757
- On morphology of larvae of the III instar in synanthropic species of flies from the genus *Hydrotaea* R.D. (Diptera, Muscidae). 17758
- On larvae of Hispinae (Coleoptera, Chrysomelidae) of the fauna of the USSR. 17759
- A new species of the gamasid mite *Ichoronyssus mirabilis* Senotrusova et Tagiltsev sp. n. (Acariformes, Gamasoidea) from whiskered millers of the Zaisan hollow. 17769
- The genera of African Lycaenidae (Lepidoptera: Rhopalocera). 17771
- A preliminary report of the mosquitoes in the Gilgit Agency area. 17772
- A description of the pupa of the pales weevil, *Hylobius pales*, and a method for identifying its sex. 17773
- Contribution to the study of the genera *Stizocera* Serv., 1834. Brazilian species (Coleoptera, Cerambycidae). 17774
- A prodrome of the genus *Orthopodomyia* (Diptera, Culicidae). 17775
- Siphona kangwayei* n. sp., a blood sucking fly from Uganda (Diptera: Muscidae). 17776
- Notes on deathwatch beetles (Coleoptera). 17821
- On the *Sphodromantis* of the species *viridis* from northwest Africa. 17849
- INSECT TRAPS**
- Catch of insects at different heights in traps equipped with blacklight lamps. 17736
- Field studies of sex attraction in the boll weevil. 17790
- Alate aphid species captured in yellow pans. 17806
- A simplified field cage for trapping pink bull-worm adults. 17819
- Interception of apple maggot adults on colored traps in an orchard. 17860
- Influence of population level and trap spacing on capture of tobacco horn-worm moths in blacklight traps with virgin females. 17861
- Studies of the epidemiology of arthropod-borne virus infections at Mitchell River mission, Cape

York Peninsula, north Queensland. I. Mosquito collections, 1963-1966. 17914

Aluminum foil and white polyethylene mulches to repel aphids and control watermelon mosaic. 18083

INSECT VECTORS

- Studies on the biological properties of *Toxoplasma gondii* in the body of insects, using *Pediculus humanus* L. as test animals. 17812
- Studies of the epidemiology of arthropod-borne virus infections at Mitchell River mission, Cape York Peninsula, north Queensland. II. Arbovirus infections of mosquitoes, man, and domestic fowls, 1963-1966. 17910
- Biology of vector-associated diseases in Vietnam. 17913
- Studies of the epidemiology of arthropod-borne virus infections at Mitchell River mission, Cape York Peninsula, north Queensland. I. Mosquito collections, 1963-1966. 17914
- Gamasid mites (Gamasoidea) as vectors of the disease causative agents. 17915
- Transmission of a leafhopper-borne virus from naturally infected *Poa annua* in Czechoslovakia. 18039
- Studies on the pathogen and vector of Dutch elm disease. A. Morphogenesis in *Ceratocystis ulmi*. B. Chemicals stimulating feeding by *Scolytus multistriatus*. II. An improved method for the isolation of a toxic metabolite from *Rhizoctonia leguminicola*. 18051
- Cross protection between a plant virus and potato psyllid yellows. 18067
- Aluminum foil and white polyethylene mulches to repel aphids and control watermelon mosaic. 18083
- Natural acquisition compared with mechanical inoculation of six-spotted leafhoppers for transmission of the oat blue dwarf virus. (Abstract). 18085
- Aphid vectors of barley yellow dwarf virus in blacklight traps in eastern United States. 18089
- The use of menazon seed dressing to decrease spread of virus yellows in sugar-beet root crops. 18098
- Isolation and electron microscopy of potato leafroll virus from plants. 18102
- A new mosaic disease of brinjal (*Solanum melongena* L.). 18116
- Bluetongue of sheep and cattle: past, present, and future. 18217
- Animal sentinels in a statewide arthropod-borne encephalitis surveillance program. 18298
- Epizootologic observations of canine filariasis in Georgia. 18330
- INSECTICIDAL AEROSOLS**
- Pyrethrins-piperonyl butoxide applied as a fog in an empty grain bin. 17897
- INSECTICIDE APPLICATION**
- Comparison of application rates of some soil insecticides for control of western corn rootworm larvae in Missouri. 17866
- Pyrethrins-piperonyl butoxide applied as a fog in an empty grain bin. 17897
- Systematic insecticide seed treatment tests on soybeans, bowling, e. 18082

- Control of the birch leaf minor with disulfoton. 18086
- Residues of diazinon in carrots after treatment against cyclodiene-resistant carrot rust fly. 18093
- Chemical control of the sunflower moth on sunflowers. 18123
- Horn fly control with coumaphos. 18349
- Northern fowl mite control on mature turkeys on range. 18350
- Residues of diazinon, coumaphos, cioldrin, methoxychlor, and rotenone in cow's milk from treatments similar to those used for ectoparasite and fly control on dairy cattle, with notes on safety of diazinon and cioldrin to calves. 18403
- Speedometer adapted for fog calculations. 18494
- INSECTICIDE RESIDUES**
- Pyrethrins-piperonyl butoxide applied as a fog in an empty grain bin. 17897
- Effects on populations of corn rootworms of aldrin residues in soil four years after application. 18087
- Residues of diazinon in carrots after treatment against cyclodiene-resistant carrot rust fly. 18093
- Loss of phorate from a granular formulation applied in the soil. 18110
- Notice of filing of petition regarding pesticide chemicals. 18388
- Niagara NIA-10242 insecticide residues: Their persistence in coastal bermudagrass, corn, and silages, and their effect, fed in silage, on lactating cows. 18400
- Insecticide residues in pest control. 18401
- Residues of diazinon, coumaphos, cioldrin, methoxychlor, and rotenone in cow's milk from treatments similar to those used for ectoparasite and fly control on dairy cattle, with notes on safety of diazinon and cioldrin to calves. 18403
- INSECTICIDE RESISTANT INSECTS**
- Latest research plans on the problem of cockroach resistance. 17805
- INSECTICIDES**
- Subterranean termite studies in southern Ontario. 17747
- Organothiocyantes as insecticides and carbamate synergists. 17785
- Selective recovery of volatile products from house flies treated with radioactive insecticide chemicals and synergists. 17796
- Influence of repellency on the efficacy of blatticides. IV. Comparison of four cockroach species. 17814
- Field tests of chemicals for control of the European corn borer. 17831
- Pesticides and pollution. SB959.0U4. 17863
- Comparison of application rates of some soil insecticides for control of western corn rootworm larvae in Missouri. 17866
- Ethylene oxide for the control of American foul-brood in honey bees. 17881
- Comparative life histories of chlordane-resistant and nonresistant German cockroaches. 17901

SUBJECT INDEX

• KIDNEYS

- Evaluation of systemic fungicides and insecticides for the control of cotton boll rot in vitro. (Abstract). 17943
- Systematic insecticide seed treatment tests on soybeans, bowling, c.c. 18082
- Control of the birch leaf minor with disulfoton. 18086
- Studies on a biological and a chemical method of controlling the dark rice field mosquito in Louisiana. 18090
- Tests with insecticides for the control of resistant *Myzus persicae* (Sulzer) on year-round *chrysanthemums*. 18095
- The use of menazon seed dressing to decrease spread of virus yellows in sugar-beet root crops. 18098
- Attempts at combatting oystershell scale, *Lepidosaphes ulmi* (L.), on apple trees in orchards of Quebec. 18109
- The tolerance of imported commodities to fumigation with methyl bromide. 18112
- Control of mustard aphid (*Lipaphis erysimi* Kalt.) by systemic insecticides. 18115
- Chemical control of the sunflower moth on sunflowers. 18123
- Control of the elm leaf beetle in Arizona. 18128
- Effect of organo-Phosphorus insecticides on the warm blooded animals and cure thereof. 18193
- Further evaluation of animal systemic insecticides, 1967. 18347
- Horn fly control with coumaphos. 18349
- Degradation of diazinon by synergistic microbial action. 18384
- The effect of environmental and biological factors on the persistence of malathion applied in low volume technical and emulsifiable concentrate forms to cotton plants. 18386
- Effects on groundwater. Municipal sources. 18390
- Insecticide residues in pest control. 18401
- Note on the determination of carbaryl residues in hen skin. 18406
- ## INSECTS
- An improved incubator for insects for operation above room temperature and relative humidity. 17734
- Insects affecting seed production of Shortleaf pine in the Georgia piedmont. 17748
- Comparative toxicity (Mammalia, Insecta, Acarina) of recent S,S-dimethyl S-benzyl derivatives substituted for tri- and tetrathio phosphoric acids. 17800
- Influence of a virus disease on the hemocytic anti-cryptogamic reactions in insects. 17893
- Permeability and excitation of insect muscle. 17896
- ## INTEGRATED CONTROL (INSECTS)
- Preliminary evaluation of a granulosis virus for control of the codling moth. 17822
- ## INTERFERON
- Some factors affecting interferon production by foot-and-mouth disease virus in bovine tissue cultures. 18316
- Interference between modified and virulent strains of foot-and-mouth disease virus. 18317
- Influence of statolon-induced interferon on rabies virus infection in mice. 18322
- The effect of trauma on production of herpes interferon in guinea pigs. 18331
- ## INTESTINES
- Accumulation of glycine in the fat body of the silkworm, *Bombyx mori* L. 17803
- Clostridium perfringens* type A infection of ligated intestinal loops in lambs. 18255
- ## INVERTEBRATES
- Macroinvertebrates. Fresh water. 18402
- ## ION EXCHANGE
- A comparative study of cell wall glycopeptide structure of some bovine vibrios. 18247
- Low temperature irradiation applied to neutron activation analysis of mercury in human whole blood. 18484
- ## IONIZING RADIATION
- Ionizing irradiation of foot-and-mouth disease virus and its ribonucleic acid. 18309
- ## IONS
- Permeability and excitation of insect muscle. 17896
- Oxalate metabolism in sheep and its effect on the anion-cation balance. 18188
- Influence of micro-organisms on the distribution in roots of phosphate labelled with phosphorus-32. 18424
- ## IRIDOMYRMEX HUMILIS
- Food distribution within colonies of the Argentine ant, *Iridomyrmex humilis* (Mayr). 17859
- ## IRRADIATION
- Some effects of gamma radiation on the tobacco budworm *Heliothis virescens* (Fabricius). 17818
- Gamma-ray-induced mutations in *Drosophila melanogaster* oocytes: The phenomenon of dose rate. 17904
- Mortality staging of dominant lethals induced in the F1 generation of sugarcane borer; *Diatraea saccharalis* (F.). 18127
- Avirulent mutant of a strain of ornithosis agent obtained by gamma irradiation. 18195
- Does the agent of scrapie replicate without nucleic acid. 18205
- Anaplasma marginale*-infectivity in splenectomized and radiated rabbits. 18210
- Food intake and growth of burro foals after 250 roentgens of cobalt-60 whole-body gamma irradiation. 18271
- Response of lymphocyte-depleted calves to fluid tetanus toxoid. 18293
- Red light induction of gibberellin synthesis in leaves. 18468
- Low temperature irradiation applied to neutron activation analysis of mercury in human whole blood. 18484
- ## ISOLEUCINE
- Some aspects of isoleucine metabolism in the yellow fever mosquito, *Aedes aegypti* (L.). 17891
- ## ISOTOPES
- Food intake and growth of burro foals after 250 roentgens of cobalt-60 whole-body gamma irradiation. 18271
- Studies on the fungitoxicity of captan. VI. Decomposition of 35S-labelled captan by *Neurospora crassa* conidia. 18469
- ## IXODIDES
- Simple field and laboratory method for recovering living ticks (*Ixodidae*) from hosts. 17733
- On the distribution of *Ixodes angustus* Neum. (*Ixodidae*). 17768
- The infection of *Boophilus microplus* with *Babesia bigemina*. 17795
- Tick resistance in cattle: its stability and correlation with various genetic characteristics. 18348
- Resistance of cattle to the tick *Boophilus microplus* (Canestrini). II. Stages of the life cycle of the parasite against which resistance is manifest. 18351
- ## IXODOIDEA
- Simple field and laboratory method for recovering living ticks (*Ixodoidea*) from hosts. 17733
- ## JAAGZIEKTE
- Pneumonia of sheep in Kenya. II. Pathology of chronic progressive pneumonia. 18338
- ## JAPANESE B ENCEPHALITIS VIRUS
- The experimental production of a formalin-killed Japanese encephalitis virus vaccine from porcine kidney cell cultures. 18260
- ## JAPONOTHYAS
- Two new species of Thyasidae (Acarina) from Nikko National Park Japan. 17752
- ## JAVESELLA PELLUCIDA
- Bionomics, enemies and population dynamics of *Javesella pellucida* (F.) (Hom., Delphacidae). 17875
- ## KADANG-KADANG (COCONUTS)
- Anatomic effects of kadang-kadang disease on coconuts. 17940
- ## KIDNEY BEANS
- Studies on the effects of Hg(II) and sucrose on the mechanical transmission of tobacco mosaic virus ribonucleic acid to pinto bean (*Phaseolus vulgaris* L.). 18011
- Influence of nitrogen nutrition on *Fusarium* root rot of pinto bean and on its suppression by barley straw. 18028
- Alterations in the auxin levels of resistant and susceptible hosts induced by the curly top virus. 18066
- A physiologic-genetic study of the differential response of navy beans (*Phaseolus vulgaris* L.) to zinc. 18466
- Auxin-induced elimination of a protein in bean hypocotyl. 18470
- Metabolism of amitrole (3-amino-1,2,4-triazole) in relation to the differential susceptibility of *Cirsium arvense* (L.) scop. ecotypes. 18474
- ## KIDNEYS
- Characterization studies on feline panleucopenia virus. (with). II. Pathogenesis in the host. 18233
- Mineral and endocrine interrelationships in renal calcification. 18292

SUBJECT INDEX

KINASES

Changes in protein and nucleic acid metabolism in baby hamster kidney cells infected with foot-and-mouth disease virus. 18308

Eight feline viruses: An electron microscopic study. 18324

KINASES

Studies on insect (*Periplaneta americana* L.) phosphofructokinase. 17827

KINETICS

Quantitative studies on the kinetics of establishment and expulsion of intestinal nematode populations in susceptible and immune hosts. *Nippostrongylus brasiliensis* in the rat. 18364

Estimation of radiation resistance values of microorganisms in food products. 18383

Anaerobic processes. Microbiology and mechanism. 18405

KINETIN

Accumulation of glycine in the fat body of the silkworm, *Bombyx mori* L. 17803

Cytokinin effect of benzyladenine: Increase of nucleic acid and protein synthesis in bean leaves. 18048

Interaction of growth regulators in the senescence of nasturtium leaf disks. 18426

LABELING

A red dye to evaluate bait formulations and to mass mark field populations of boll weevils. 17856

A possible marker for european corn borer moths. 17882

Techniques of marking insects with micronized fluorescent dust with especial emphasis on marking millions of *Lygus hesperus* for dispersal studies. 17886

LABORATORIES

Spider populations in grain sorghums. 17784

Notes on microanalytical techniques in the analysis of foods for extraneous materials. 17792

Commonwealth Institute of biological control-Indian Station. 17923

The effect of disinfection on cereal seeds determined in laboratory experiments and emergence tests in soil. 17924

Conditions for infection of celery by *Septoria apiicola*. 18059

Anthrenus melanocerus as a predator of the green peach aphid on sugar beets and broccoli. 18121

Clinical aspects of toxic infections by anaerobic germ spores in ruminants. 18229

Newcastle disease: A legal interpretation. 18245

Agricultural (livestock) wastes. 18404

Studies on the laboratory soiling of milking equipment. 18409

Laboratory tests of fungicides against *Peronospora parasitica* (Pers. ex. Fr.) Fr. 18433

LABORATORY ANIMALS

Clostridium perfringens type A infection of ligated intestinal loops in lambs. 18255

California-encephalitis-group viruses in Florida rabbits: Report of experimental and sentinel studies. 18265

Common disease problems in laboratory animals. 18332

LACTATION

The effect of intramammary infection during the dry period on the milk production of the affected quarter at the start of the succeeding lactation. 18194

LAMBS

Atypical Globidiosis in a lamb. 18213

Effects of selenium and vitamin E on nutritional muscular dystrophy in lambs. 18242

Clostridium perfringens type A infection of ligated intestinal loops in lambs. 18255

Effects of a low manganese diet on certain ovine characteristics. 18274

The utilization of vitamin A and carotene by ruminants. 1. Vitamin A potency of carotenes in corn silage fed to lambs. 2. The effect of time and route of administration of vitamin A on liver vitamin A storage by steers. 3. The effect of route of administration of vitamin A on blood serum and liver vitamin A concentrations in steers at subsequent time intervals. 18281

Successful treatment of coccidiosis in lambs. 18313

Rearing lambs free of gastrointestinal nematodes. 18368

LAND

The effect of disinfection on cereal seeds determined in laboratory experiments and emergence tests in soil. 17924

LARVAE

Larvae of click beetles of the genus *Idolus* Desbr. and position of this genus in the system Elateridae (Coleoptera). 17746

On morphology of larvae of the III instar in synanthropic species of flies from the genus *Hydrotaea* R.D. (Diptera, Muscidae). 17758

On larvae of *Hispinae* (Coleoptera, Chrysomelidae) of the fauna of the USSR. 17759

Notes on raising *Lepidoptera* in Meurthe and Moselle. 17763

Hemiptera associated with pig carrion. 17764

Further studies on the effect of bovine diet on face fly development. 17766

Studies of caste differentiation in *Myrmica rubra* L. 9. Maternal environment and the caste bias of larvae. 17791

A comparative study of salivary gland chromosome asynapsis in tumorigenic and closely related non-tumorigenic strains of *Drosophila melanogaster*. 17804

The formation of the cuticular ridges in the larval pharynx of the blowfly (*Calliphora vicina* R.-D.). 17809

Preliminary evaluation of a granulosis virus for control of the codling moth. 17822

Effects of mold inhibitors in larval diet on the biology of the cabbage looper. 17847

Egg and larval development of *Cardiochiles nigriceps*. 17855

Comparison of application rates of some soil insecticides for control of western corn rootworm larvae in Missouri. 17866

Ethylene oxide for the control of American foul-brood in honey bees. 17881

On the innervation of the prothoracic glands in *Papilio demoleus* L. (Lepidoptera). 17884

Life history of the looper *Phigalia titea* in Virginia. 17889

Black vine weevil larval damage to concord grape roots at different population densities. 18088

A bioassay technique for screening feeding stimulants for larvae of tobacco budworm. 18096

Resistance in bermudagrass to the fall armyworm. 18104

A medium for laboratory rearing of the peach tree and lesser peach tree borers. 18114

Chemical control of the sunflower moth on sunflowers. 18123

The effect of ultra-violet radiation on the invasion, survival and fertility of larvae of *Heterodera rostochiensis*. 18136

The effect of environment on sex determination in *Heterodera rostochiensis*. 18154

Relationship between infecting dose, muscle parasitism and antibody response in experimental trichinosis in rabbits. 18329

Resistance of cattle to the tick *Boophilus microplus* (Canestrini). II. Stages of the life cycle of the parasite against which resistance is manifest. 18351

Effect of desiccation on survival of the free-living stages of *Trichostrongylus colubriformis*. 18353

Studies on the spring phenomenon in ovine helminthiasis. I. Spring rise in stabled sheep. 18372

Parasitic development of *Obeliscoides cuniculi* in rabbits. 18375

On the development of *Cysticercus fasciolaris* in albino rat liver and its reaction on the host tissue. 18381

LATE BLIGHT (POTATOES)

The relation of rainfall, relative humidity, and temperature to late blight of potato in *Sedes, Sindos-Lahanokipi* of *Nomos Thessaloniki*. 17925

Effect of variety on the control of potato late blight with fungicides. (Abstract). 18013

LATEX

Effects of plant growth regulators and other compounds on flow of latex in *Hevea brasiliensis*. 18421

LATRODECTUS MACTANS

The molting behavior of the black widow spider, *Latrodectus mactans*. 17830

LEAF BLIGHT (CORN)

A leaf blight of corn (*Zea mays*) incited by *Fusarium moniliforme*. (Abstract). 18053

LEAF ROLL (POTATOES)

A study on auxin and chlorogenic acid in leaf-roll resistant and susceptible potato varieties. 18032

Isolation and electron microscopy of potato leafroll virus from plants. 18102

LEAVES

Spread of the boll weevil by drainage water and air currents. 17824

SUBJECT INDEX

LIPAPHIS ERYSIMI

Method for estimating intensity of the little leaf disease of brinjal (*Solanum melongena*).
17917

Race buildup of *Xanthomonas malvacearum* on cotton in southeast Missouri.
17928

Reducing spring discharge of *Venturia inaequalis* ascospores by composting overwintering leaves.
17929

Selective staining of dead cells in bean leaves injured by ozone.
17931

Morphology and longevity of *Verticillium albo-atrum* in cotton leaves. (Abstract).
17957

Effect of *Xanthomonas vesicatoria* on loss of electrolytes from leaves of *Capsicum annuum*.
17970

Effect of *Uromyces phaseoli* on the water relations of primary bean leaves. (Abstract).
17977

Local lesion development in Turkish tobacco leaves heated after inoculation with tobacco mosaic virus. (Abstract).
17983

Ultrastructure of *Zea mays* leaf cells infected with Johnson grass strain of sugarcane mosaic virus. (Abstract).
17986

Ultrastructural changes in apple leaf cells induced by virulent and avirulent strains of *Erwinia amylovora*. (Abstract).
17989

Effects of barley stripe mosaic virus infection on the respiration of barley leaves. (Abstract).
17990

Protein and enzyme changes in wheat leaves following infection with *Puccinia recondita*.
18005

Differentiation of races of *Pseudomonas solanacearum* by a hypersensitive reaction of tobacco leaves. (Abstract).
18025

Cytochrome oxidase and mitochondrial protein in extracts of leaves of *Nicotiana glutinosa* L. Infected with tobacco mosaic virus.
18045

Cytokinin effect of benzyladenine: Increase of nucleic acid and protein synthesis in bean leaves.
18048

A leaf blight of corn (*Zea mays*) incited by *Fusarium moniliforme*. (Abstract).
18053

Occurrence of *Agrophron* mosaic virus in Montana.
18058

Conditions for infection of celery by *Septoria apiicola*.
18059

The frequency of penetration of epidermal strips and intact wheat leaves by *Puccinia graminis* f. sp. *tritici*.
18060

Control of the birch leaf minor with disulfoton.
18086

Effects of early-, mid-, and late-season infestations of two-spotted spider mites on the yield of cotton.
18094

Quantitative changes in organic acids in roots and leaves from grapefruit seedlings infected with *Rhadopholus similis*.
18138

Manganese toxicity in celery.
18413

Interaction of growth regulators in the senescence of nasturtium leaf disks.
18426

Effect of defoliant on carbohydrate and nitrogen metabolism in cotton plant leaves.
18448

Red pine needle structure.
18451

A biochemical role for boron.
18456

Effect of calcium availability on alfalfa grown in calcareous high sodium soils.
18464

Red light induction of gibberellin synthesis in leaves.
18468

Metabolism of amitrole (3-amino-1,2,4-triazole) in relation to the differential susceptibility of *Cirsium arvense* (L.) Scop. ecotypes.
18474

LECANIUM FLETCHERI
Studies on the morphology and biology of *Lecanium fletcheri* Ckll. (Homoptera, Coccoidea) and related species.
17813

LEGUMES
A Phytophthora from subterranean clover roots that attacks soybean and other legumes. (Abstract).
18004

Forage crops, small grains.
18167

LEMONS
The influence of an organic soil amendment on infectivity and reproduction of *Tylenchulus semipenetrans* on two citrus rootstocks.
18144

LENZITES TRABEA
Subterranean termite studies in southern Ontario.
17747

LEPIDOPTERA
Insects affecting seed production of Shortleaf pine in the Georgia piedmont.
17748

Notes on raising Lepidoptera in Meurthe and Moselle.
17763

Meteorological factors affecting the activity of night flying Macro-Lepidoptera.
17832

About lepidopterous immatures.
17857

On the innervation of the prothoracic glands in *Papilio demoleus* L. (Lepidoptera).
17884

LEPIDOSAPHES ULMI
Attempts at combatting oystershell scale, *Lepidosaphes ulmi* (L.), on apple trees in orchards of Quebec.
18109

LEPTINOTARSA DECEMLINEATA
On periodicity of gas exchange in ontogenesis of the Colorado beetle (*Leptinotarsa decemlineata* Say.).
17892

LEPTOSPIRA CANICOLA
Water, electrolyte, and acid-base alterations in experimental canine leptospirosis.
18244

LETHAL FACTOR
Gamma-ray-induced mutations in *Drosophila melanogaster* oocytes: The phenomenon of dose rate.
17904

Developmental characteristics of five lethal mutants of *Drosophila melanogaster*.
17908

LETHAL FACTORS
Selective staining of dead cells in bean leaves injured by ozone.
17931

Effect of organo-Phosphorus insecticides on the warm blooded animals and cure thereof.
18193

Avirulent mutant of a strain of ornithosis agent obtained by gamma irradiation.
18195

A method for evaluation of vaccines containing *Pasteurella multocida*.
18380

LETHAL YELLOWING (COCONUTS)
Reproduction of the coconut lethal yellowing syndrome by mechanical inoculation of young seedlings.
18049

LEUKEMIA
Experimental transmission of two canine neoplasms: Lymphosarcoma and mast cell leukemia.
18310

LEUKOCYTES
Hemophilia-like disease of swine: Cytogenetic studies.
18223

LIFE CYCLE
Parasitic and free-living cycles in entomogenous nematodes of the genus *Deladenus*.
17731

LIGHT
Circadian emergence rhythm of a tropical scolytid, *Xyleborus ferrugineus*.
17767

Comparative gibberellin relationships in tall and dwarf peas (*Pisum sativum* L.).
17916

On light-sensitivity in germinating uredospores of wheat brown rust.
18080

Light quality effects on growth and development ragweed.
18161

Hog cholera: Safety and protection studies with photodynamically inactivated hog cholera virus.
18232

Light stimulated biosynthesis of gibberellins in *Fusarium moniliforme*.
18462

Red light induction of gibberellin synthesis in leaves.
18468

Stomatal movements; a yearly rhythm.
18473

Metabolism of amitrole (3-amino-1,2,4-triazole) in relation to the differential susceptibility of *Cirsium arvense* (L.) Scop. ecotypes.
18474

LIGHT TRAPS
Catch of insects at different heights in traps equipped with blacklight lamps.
17736

Insects affecting seed production of Shortleaf pine in the Georgia piedmont.
17748

Influence of population level and trap spacing on capture of tobacco horn-worm moths in blacklight traps with virgin females.
17861

Studies of the epidemiology of arthropod-borne virus infections at Mitchell River Mission, Cape York Peninsula, north Queensland. II. Arbovirus infections of mosquitoes, man, and domestic fowls, 1963-1966.
17910

Aphid vectors of barley yellow dwarf virus in blacklight traps in eastern United States.
18089

LIGHTING
Low light intensity promotes melting out of bluegrass. (Abstract).
18026

LIME
Reducing spring discharge of *Venturia inaequalis* ascospores by composting overwintering leaves.
17929

LINSEED OIL
Systemic-chemical paints for the control of *Cytospora* canker disease in prune trees.
17996

LIPAPHIS ERYSIMI
Control of mustard aphid (*Lipaphis erysimi* Kalt.) by systemic insecticides.
18115

SUBJECT INDEX

LIPARA LUCENS

LIPARA LUCENS

Habitat selection by *Lipara lucens* Mg. (Diptera, Chloropidae) and its survival value. 17761

LIPIDS

Some aspects of isoleucine metabolism in the yellow fever mosquito, *Aedes aegypti* (L.) 17891

Constituents of the cotton bud. XIII. Further studies on a nonpolar feeding stimulant for the boll weevil. 18124

Lipids of Venezuelan equine encephalomyelitis virus and their relationship to the lipids of the host. 18256

LIRIOMYZA

A review of recent literature on the host plant range of the genus *Liriomyza mik* (Diptera: Agromyzidae) in the Continental United States and Hawaii, excluding Alaska. 17770

LISTERIA GRAYI

Ecologic aspects of listeriosis. 18214

LISTERIA MONOCYTOGENES

Ecologic aspects of listeriosis. 18214

LISTERIOSIS

Ecologic aspects of listeriosis. 18214

LITERATURE

A review of recent literature on the host plant range of the genus *Liriomyza mik* (Diptera: Agromyzidae) in the Continental United States and Hawaii, excluding Alaska. 17770

LIVER

Influence of dietary vitamin A on cholesterol metabolism of chickens. 18185

Strychnine levels in tissues and stomach contents of poisoned dogs: An eleven year survey. 18254

The utilization of vitamin A and carotene by ruminants. 1. Vitamin A potency of carotenes in corn silage fed to lambs. 2. The effect of time and route of administration of vitamin A on liver vitamin A storage by steers. 3. The effect of route of administration of vitamin A on blood serum and liver vitamin A concentrations in steers at subsequent time intervals. 18281

Liver granulomas of turkeys caustive agents and mechanism of infection. 18294

Lesions caused by the hepatic trematode, *Metrochis conjunctus*, Cobbold, 1860, A comparative study in Carnivora. 18369

Pyrolizidine alkaloid poisoning in calves. 18412

LIVESTOCK

Further studies on the use of ERA rabies vaccine in domestic animals. 18201

A survey to determine the salmonella contamination rate in livestock and poultry feeds. 18204

A fern poisoning-like disease observed in an improved pasture. 18261

Agricultural (livestock) wastes. 18404

LIVESTOCK DISEASES

Bacteriological studies of poultry litter fed to livestock 18203

Mycoplasma meleagridis ('N' strain mycoplasma - PPLO): Relationship of air sac lesions and isolations in day old turkeys (*Meleagris Gallopavo*). 18211

Nematodiasis in Louisiana dairy cattle. Impact of host nutrition upon experimental ostertagiasis in the bovine. 18212

Corynebacterium equi infection in two foals. 18225

Histopathological aids to the diagnosis of certain poultry diseases. 18284

Salmonella dublin meningitis in piglets. 18287

Placental pathology of experimentally-induced enzootic abortion in ewes. 18300

A comparison of methods of measuring the persistence of neutralizing and haemagglutinin-inhibiting antibodies to louping ill virus in experimentally infected sheep. 18302

Age susceptibility and excretion of *Salmonella typhimurium* in calves. 18312

Pneumonia of sheep in Kenya. II. Pathology of chronic progressive pneumonia. 18338

LOAM

Factors affecting the infection of black spruce (*Picea mariana* Mill.) transplants by *Cylindrocylindrium scoparium*. 18056

LOCOMOTION

Mechanism of locust jumping. 17793

LOCUSTA MIGRATORIA

Photoinhibitory function of the dorsal ocelli in the phototactic reaction of the migratory locust *Locusta migratoria* L. 17786

LOGS

Survival of the balsam woolly aphid on Abies logs. 18084

LONGEVITY

The effect of blood-feeding on the longevity of radiationresistant yellow-fever mosquitoes. 17885

Morphology and longevity of *Verticillium albo-atrum* in cotton leaves. (Abstract). 17957

Longevity of an experimental infection with *Dirofilaria immitis* in a dog. 18297

LOPHODERMUM PINASTRI

The relationships of ozone, *Lophodermium pinastri* and *Pullularia pullulans* to needle blight of Eastern white pine. 17972

LOUPING ILL VIRUS

A comparison of methods of measuring the persistence of neutralizing and haemagglutinin-inhibiting antibodies to louping ill virus in experimentally infected sheep. 18302

LUMBER

Proposed federal Formosan termite quarantine safeguards. Buyer, seller. 18378

LUNGS

The significance of the stay of *Necator americanus* larvae in the puppy lung on their further development. 18283

LYCAENIDAE

The genera of African Lycaenidae (Lepidoptera: Rhopalocera). 17771

LYGUS HESPERUS

Techniques of marking insects with micronized fluorescent dust with especial emphasis on marking millions of *Lygus hesperus* for dispersal studies. 17886

LYMPH

Response of lymphocyte-depleted calves to fluid tetanus toxoid. 18293

LYMPH NODES

Histopathologic changes in male swine with experimental Brucellosis. 18237

LYMPHOMATOSIS

Histopathological aids to the diagnosis of certain poultry diseases. 18284

LYMPHOSARCOMA

Experimental transmission of two canine neoplasms: Lymphosarcoma and mast cell leukemia. 18310

LYOPHILIZATION

Avirulent mutant of a strain of ornithosis agent obtained by gamma irradiation. 18195

MACRACANTHORHYNCHUS HIRUDINACEUS Oligosaccharidases from *Macracanthorhynchus hirudinaceus* (Acanthocephala) from swine. 18186

MACROSIPHUM AVENAE

Aphid vectors of barley yellow dwarf virus in blacklight traps in eastern United States. 18089

MAGNESIUM

Some nutritional aspects of dietary magnesium in ruminants and poultry. 18227

Mineral and endocrine interrelationships in renal calcification. 18292

MAL SECCO (CITRUS)

Fungistatic constituents in citrus varieties resistant to the mal-secco disease. 18046

MALARIA

A preliminary report of the mosquitoes in the Gilgit Agency area. 17772

Biology of vector-associated diseases in Vietnam. 17913

Studies of the epidemiology of arthropod-borne virus infections at Mitchell River mission, Cape York Peninsula, north Queensland. I. Mosquito collections, 1963-1966. 17914

MALATHION

Activation of malathion by the locust bodywall. 17777

The effect of environmental and biological factors on the persistence of malathion applied in low volume technical and emulsifiable concentrate forms to cotton plants. 18386

Gel permeation cleanup for malathion in wheat, using a non-ionic, cross-linked polystyrene polymer. 18482

MAMMALS

Comparative toxicity (Mammalia, Insecta, Acarina) of recent S,S-dimethyl S-benzyl derivatives substituted for tri- and tetrathiophosphoric acids. 17800

Effect of organo-Phosphorus insecticides on the warm blooded animals and cure thereof. 18193

The toxicology of different organo-mercurials used as fungicides. 18418

MAMMARY GLANDS

The effect of intramammary infection during the dry period on the milk production of the affected quarter at the start of the succeeding lactation. 18194

MAN

The impact of fungi on man. OK603.0T3. 17934

SUBJECT INDEX

METABOLITES

- MANDIBULAR GLANDS**
Biting in Orthoptera and their allies. 17826
- MANDUCA QUINQUEMACULATA**
Catch of insects at different heights in traps equipped with blacklight lamps. 17736
- MANDUCA SEXTA**
Catch of insects at different heights in traps equipped with blacklight lamps. 17736
Influence of population level and trap spacing on capture of tobacco hornworm moths in blacklight traps with virgin females. 17861
- MANGANESE**
Effects of a low manganese diet on certain ovine characteristics. 18274
Manganese toxicity in celery. 18413
- MANOMETRY**
Mechanisms of inhibition and uncoupling of oxidative phosphorylation in housefly mitochondria. 17899
- MASTITIS**
Mycoplasmas: their role in bovine disease. 18264
Pathology and immunofluorescence studies of bovine mycoplasma mastitis. 18267
- MAYETIOLA DESTRUCTOR**
Peculiarities of development and harmful activity of the Hessian fly (*Mayetiola destructor* Say.) under conditions of irrigation. 18119
- MAZZARD CHERRIES**
Relation of boron to cherry rosette disease in Oregon, and the possible implication of a virus. 17954
- MEASUREMENT**
Developmental characteristics of five lethal mutants of *Drosophila melanogaster*. 17908
Some nutritional aspects of dietary magnesium in ruminants and poultry. 18227
California-encephalitis-group viruses in Florida rabbits: Report of experimental and sentinel studies. 18265
Quantitative studies on the kinetics of establishment and expulsion of intestinal nematode populations in susceptible and immune hosts. *Nippostrongylus brasiliensis* in the rat. 18364
The statistical description of a spray in terms of drop velocity, size, and position. 18488
Engineering and biological aspects of designing and using a selective flame weeder. 18493
- MECHANICS**
Anaerobic processes. Microbiology and mechanism. 18405
- MEDICAL ENTOMOLOGY**
Biology of vector-associated diseases in Vietnam. 17913
- MEDICINE**
Helminths as vehicles and synergists of microbial infections. 18376
- MEGALYRIDAE**
Notes on Megalynidae (Hym. Ichneumonidae) and description of new species from Madagascar. 17751
- MEIOSIS**
Chromosomal alternations in pearl millet induced by gammarays. 18465

- MELAMPSORA LINI**
Quantitative histology of *Melampsora lini* resistance in flax. (Abstract). 17941
- MELOIDOGYNE HAPLA**
The influence of crop-rotation on the attack of carrots by *Meloidogyne hapla* Chitw. and symptom formation. 18068
- MELOIDOGYNE INCOGNITA**
Interaction of *Meloidogyne javanica* and *Phytophthora parasitica* var. *nicotianae* on *Nicotiana tabacum* (N. C. 95). (Abstract). 18036
Effect of temperature and variety on nematode development and gall production on soybeans infected with *Meloidogyne incognita* acrita. (Abstract). 18131
- MELOIDOGYNE JAVANICA**
Interaction of *Meloidogyne javanica* and *Phytophthora parasitica* var. *nicotianae* on *Nicotiana tabacum* (N. C. 95). (Abstract). 18036
- MELTING OUT (POA)**
Low light intensity promotes melting out of bluegrass. (Abstract). 18026
- MENAZON**
The use of menazon seed dressing to decrease spread of virus yellows in sugar-beet root crops. 18098
- MENINGITIS**
Salmonella dublin meningitis in piglets. 18287
- MERCURY**
Studies on the effects of Hg(II) and sucrose on the mechanical transmission of tobacco mosaic virus ribonucleic acid to pinto bean (*Phaseolus vulgaris* L.). 18011
Analytical problems: Mercury in the general environment. 18408
The toxicity and distribution of mercury. 18410
Low temperature irradiation applied to neutron activation analysis of mercury in human whole blood. 18484
- MERCURY COMPOUNDS**
Distribution of mercury compounds in fish and birds. 18180
Mercury content in feathers of Swedish birds from the past 100 years. 18198
Methyl mercury compounds in fish. 18199
The toxicity and distribution of mercury. 18410
Swedish studies of game that had been found dead as well as specimens that had been shot. 18411
The toxicology of different organo-mercurials used as fungicides. 18418
Swedish restrictions concerning the use of mercury compounds for seed disinfection. 18441
- METABOLISM**
Selective recovery of volatile products from house flies treated with radioactive insecticide chemicals and synergists. 17796
Metabolism of C14-labeled hemel in male house flies. 17798
Ordered chromosomal DNA synthesis in *Drosophila melanogaster*. 17835
Tyrosine metabolism and its hormonal control after eclosion in the adult fleshfly *Sarcophaga bullata* Parker (Diptera: Sarcophagidae). 17879

- Some aspects of isoleucine metabolism in the yellow fever mosquito, *Aedes aegypti* (L.). 17891
- Anaerobic metabolism of *Albugo candida* infected radish cotyledons. 17953
- An investigation of the tobacco mosaic virus multiplication process and its effect on the metabolism of the host. 17998
- Effect of organo-Phosphorus insecticides on the warm blooded animals and cure thereof. 18193
- Relationships between zinc nutrition and alkaline phosphatase activity in the chick. 18220
- Actions of vitamin D3 and sex hormones on calcium metabolism of bone in birds, particularly in hens. 18226
- Degradation of cellular ribonucleic acid in Newcastle disease virus infected cells. 18258
- Oxalate metabolism in sheep II. Effect of low level Halogeton glomeratus intake on electrolyte metabolism. 18262
- Food intake and growth of burro foals after 250 roentgens of cobalt-60 whole-body gamma irradiation. 18271
- Copper and ascorbic acid in guinea pig tissues as effected by dietary intake. 18290
- Changes in protein and nucleic acid metabolism in baby hamster kidney cells infected with foot-and-mouth disease virus. 18308
- Administration of glycuronic acid and its excretion in dairy cows. 18333
- The effect of diet on the utilization of stable and radioactive copper in ruminants. 18334
- Degradation of diazinon by synergistic microbial action. 18384
- Effect of thiram upon glucose catabolism by *Fusarium oxysporum*. (Abstract). 18425
- Active uptake of *Helminthosporium carbonum* toxin and its effect on CO2 dark fixation by corn. (Abstract). 18453
- Oxalate biosynthesis and pathways for glucose catabolism in *Sclerotium rolfsii* Sacc. 18459
- Light stimulated biosynthesis of gibberellins in *Fusarium moniliforme*. 18462
- Wound-induced gibberellins. 18467
- Red light induction of gibberellin synthesis in leaves. 18468
- METABOLITES**
Metabolism of C14-labeled hemel in male house flies. 17798
- Studies on the pathogen and vector of Dutch elm disease. A. Morphogenesis in *Ceratocystis ulmi*. B. Chemicals stimulating feeding by *Scolytus multistriatus*. II. An improved method for the isolation of a toxic metabolite from *Rhizoctonia leguminicola*. 18051
- Chemical control of nutsedge (*Cyperus rotundus* L.) and the metabolism of 3,6-dichloro-O-anisic acid (dicamba). 18169
- Levels of 5 beta-pregnan-3 alpha, 6 alpha-diol-20-one in urine and its relationship to other metabolites of progesterone in urine of the non-pregnant domestic sow. 18189

SUBJECT INDEX

METACERCARIA

- Comparison of metabolites of progesterone-4-¹⁴C in urine from a nonpregnant domestic sow. 18190
- Isolation and purification of metabolites found in the urine of male rats fed aldrin and dieldrin. 18379
- Analytical problems: Mercury in the general environment. 18408
- Isolation of a new toxin from cultures of *Aspergillus flavus*. 18416
- Metabolism of amitrole (3-amino-1,2,4-triazole) in relation to the differential susceptibility of *Cirsium arvense* (L.) Scop. ecotypes. 18474

METACERCARIA

- On the Metacercaria of *Prosthogonimus putschkowskii* in *Sympetrum decoloratum* (Odonata: insecta) with observations on its development in chicks. 18370

METALS

- Water pollution. Effects of pollution on fish life. General aspects of water pollution biology. 18395

METAMORPHOSIS

- Effects of juvenile hormone on protein synthesis during the metamorphosis of the polyphemus silkworm. 17788
- Studies of caste differentiation in *Myrmica rubra* L. 9. Maternal environment and the caste bias of larvae. 17791
- About lepidopterous immatures. 17857
- Nucleoprotein synthesis during metamorphosis in *Drosophila virilis*. 17872
- Biology of the elm leaf beetle in southern Arizona. 17898
- Changes in the efficacy of three anthelmintics during the maturation of a nematode (*Trichinella spiralis*). 18357
- Parasitic development of *Obeliscoides cuniculi* in rabbits. 18375

METEOROLOGY

- Meteorological factors affecting the activity of night flying Macro-Lepidoptera. 17832

METEPA

- Chemical sterilization of the stable fly *Stomoxys calcitrans* (Linne), with metepa and hempa. 17797
- Reproductive behavior of the potato tuberworm, *Phthorimaea operculella* (Zeller), (Lepidoptera: Gelechiidae) and the effect of the chemosterilant metepa. 17836
- Effect of the chemosterilant metepa on the housefly, *Musca domestica* L. 17848

METHANOL

- Plant growth regulations in *Ditylenchus dipsaci*, *Ditylenchus trifurcatus* and host tissues. 18437

METHEMOGLOBIN

- Influence of nitrite and hydroxylamine on performance and vitamin A and carotene metabolism of ruminants. 18183

METHODOLOGY

- The formation of the cuticular ridges in the larval pharynx of the blowfly (*Calliphora vicina* R.-D.). 17809
- New techniques to bioassay the sex attractant of pink bollworms with olfactometers. 17829
- Medium and techniques for mass rearing the red-banded leaf roller. 17843

- Costelytra zealandica* (White) sex attraction. 17845

- Fungi in stored products. 18377

- The toxicity and distribution of mercury. 18410

- Engineering and biological aspects of designing and using a selective flame weeder. 18493

METHOXYCHLOR

- Residues of diazinon, coumaphos, cioldrin, methoxychlor, and rotenone in cow's milk from treatments similar to those used for ectoparasite and fly control on dairy cattle, with notes on safety of diazinon and cioldrin to calves. 18403

METHYL

- Methyl mercury compounds in fish. 18199

METHYL BROMIDE

- Soil fumigants tested for control of crown gall. 17973
- Reinfestation of forest sites by the Texas leaf-cutting ant. 18107
- The tolerance of imported commodities to fumigation with methyl bromide. 18112

METHYLENE CHLORIDE

- Note on the determination of carbaryl residues in hen skin. 18406

METHYRIDINE

- Changes in the efficacy of three anthelmintics during the maturation of a nematode (*Trichinella spiralis*). 18357

METORCHIS CONJUNCTUS

- Lesions caused by the hepatic trematode, *Metorchis conjunctus*, Cobbold, 1860; A comparative study in Carnivora. 18369

MICE

- Studies on selection in natural and experimental populations of *Drosophila pseudoobscura*. 17781
- Avirulent mutant of a strain of ornithosis agent obtained by gamma irradiation. 18195
- Does the agent of scrapie replicate without nucleic acid. 18205

- Antibody response to immunization in experimental Salmonellosis. 18269

- Prevalence of *Trichinella spiralis* in wild animals on two Illinois swine farms. 18282

- Mitochondrial involvement in the host-parasite relationship. 18305

- Influence of statolon-induced interferon on rabies virus infection in mice. 18322

- Experimental studies in mice on the therapy of trichinellosis (Thiabendazole, Neguvon, cortisone, azulen, sera). 18366

- Anthelmintic activity of some carbamate derivatives. 18374

- A method for evaluation of vaccines containing *Pasteurella multocida*. 18380

- The toxicity and distribution of mercury. 18410

MICROBIOLOGY

- Simple field and laboratory method for recovering living ticks (Ixodoidea) from hosts. 17733

- Notes on microanalytical techniques in the analysis of foods for extraneous materials. 17792

- Microflora associated with agalactia syndrome of sows. 18207

- Estimation of radiation resistance values of microorganisms in food products. 18383

- Degradation of diazinon by synergistic microbial action. 18384

- Microbiology. Gastrointestinal outbreaks. 18392

- Anaerobic processes. Microbiology and mechanism. 18405

MICROORGANISMS

- The pathogenicity of secondary and tertiary basidiospores of *Cronartium fusiforme*. 18052

- Microflora associated with agalactia syndrome of sows. 18207

- Placental pathology of experimentally-induced enzootic abortion in ewes. 18300

- Fungi in stored products. 18377

- Estimation of radiation resistance values of microorganisms in food products. 18383

- Degradation of diazinon by synergistic microbial action. 18384

- Influence of micro-organisms on the distribution in roots of phosphate labelled with phosphorus-32. 18424

MICROSCOPY

- Larch sawfly survival in relation to water levels and microtopography in tamarak bogs. 17839

- A case of porcine endocarditis associated with *Staphylococcus aureus*. 18248

MIDDELBURG VIRUS

- The multiplication of Middelburgs and 1 plaque viruses in *Aedes aegypti* mosquitoes. 17735

MILDEW (BARLEY)

- Physiologic race changes in barley mildew 1964-67. 18130

MILK

- The effect of intramammary infection during the dry period on the milk production of the affected quarter at the start of the succeeding lactation. 18194

- Pathology and immunofluorescence studies of bovine mycoplasma mastitis. 18267

- Acute infectious bovine rhinotracheitis and salmonellosis in a dairy herd. 18344

- Studies on the laboratory soiling of milking equipment. 18409

MILK ANALYSIS

- Niagara NIA-10242 insecticide residues: Their persistence in coastal bermudagrass, corn, and silages, and their effect, fed in silage, on lactating cows. 18400

- Residues of diazinon, coumaphos, cioldrin, methoxychlor, and rotenone in cow's milk from treatments similar to those used for ectoparasite and fly control on dairy cattle, with notes on safety of diazinon and cioldrin to calves. 18403

MINERAL OIL

- Preliminary observations on the effect of alcohol and oil films on the oviposition of *Culex pipiens quinquefasciatus* (Say). 17844

SUBJECT INDEX

MUSCA AUTUMNALIS

- MIREX**
Subterranean termite studies in southern Ontario. 17747
- MIRIDAE**
Neotropical Mirids, XCVIII: three new species of the tribes Bryocorini and Orthotylini (Hemiptera). 17742
A new genus and two new species of mirid bugs (Heteroptera, Miridae) from the eastern regions of the USSR. 17755
- MITES**
Biological and ecological studies on Caloglyphus mite (Acarina: Acaridae) associated with Scarabaeidae. 17743
Two new species of Thyasidae (Acarina) from Nikko National Park Japan. 17752
A new genus and species of the phytophagous mite (Bryobiidae, Acariformes). 17757
A new species of the gamasid mite Ichronyssus mirabilis Senotrusova et Tagiltsev sp. n. (Acariformes, Gamasoidea) from whiskered millers of the Zaisan hollow. 17769
Northern fowl mite control on mature turkeys on range. 18350
- MITOCHONDRIA**
Mechanisms of inhibition and uncoupling of oxidative phosphorylation in housefly mitochondria. 17899
Cytochrome oxidase and mitochondrial protein in extracts of leaves of Nicotiana glutinosa L. Infected with tobacco mosaic virus. 18045
Cytomorphological features of TMV-INFECTED tobacco callus cells in tissue culture. 18063
Mitochondrial involvement in the host-parasite relationship. 18305
- MITOSIS**
Mitotic chromosomes of Glossina pallidipes Austen. 17905
Mitotic recombination in conidiophores of verticillium albo-atrum. 17922
- MIYAGAWANELLA GROUP VIRUSES**
Psittacosis-lymphogranuloma venereum agent isolated during an abortion epizootic in goats. 18286
- MOLECULES**
Gas chromatographic detector for simultaneous sensing of phosphorus and sulfur-containing compounds by flame photometry. 18483
- MOLTING (INSECTS)**
The molting behavior of the black widow spider, Latrodectus mactans. 17830
- MONILINIA LAXA**
Dispersal patterns of Monilinia laxa spores in peach, prune, apricot, and almond trees during early spring. (Abstract). 18435
- MORPHOLOGY**
A review of recent literature on the host plant range of the genus Liriomyza mik (Diptera: Agromyzidae) in the Continental United States and Hawaii, excluding Alaska. 17770
Mitotic chromosomes of Glossina pallidipes Austen. 17905
Morphology and longevity of Verticillium albo-atrum in cotton leaves. (Abstract). 17957
- Occurrence of Agrophron mosaic virus in Montana. 18058
Introduction to Bacillus thuringiensis and its uses. 18103
Effect of temperature and variety on nematode development and gall production on soybeans infected with Meloidogyne incognita acrita. (Abstract). 18131
Electron microscope studies of some cephalic structures of Xiphinema americanum. 18142
Characterization studies on feline panleucopenia virus. (with). II. Pathogenesis in the host. 18233
Electron microscopic studies on the development of vesicular stomatitis virus. 18236
A case of porcine endocarditis associated with Staphylococcus aureus. 18248
Basic biological characteristics of mycoplasma. 18277
Liver granulomas of turkeys caustive agents and mechanism of infection. 18294
Eight feline viruses: An electron microscopic study. 18324
An electron microscope study of the tegument and associated structures of the proceroid of Diphyllbothrium latum (L.). 18355
On the development of Cysticercus fasciolaris in albino rat liver and its reaction on the host tissue. 18381
Inorganic composition and microscopy of citrus roots grown under several copper and soil amendment conditions. 18428
- MORTALITY**
Activation of malathion by the locust bodywall. 17777
Preliminary evaluation of a granulosis virus for control of the codling moth. 17822
Effect of the chemosterilant metepa on the housefly, Musca domestica L. 17848
Premature death of adult rusted wheat plants in relation to carbon dioxide evolution by root systems. 17964
Additional information on the pathogenicity of Scleroderris lagerbergii. 18065
Bacterial canker of tomato; inoculum level needed for infection. 18071
Attack of the black turpentine beetle on roots of slash pines. 18118
Anthracis melanocerus as a predator of the green peach aphid on sugar beets and broccoli. 18121
Mortality staging of dominant lethals induced in the F1 generation of sugarcane borer, Diatraea saccharalis (F.). 18127
Treatment for poisoning by slug bait. 18187
Characterization studies on feline panleucopenia virus. (with). II. Pathogenesis in the host. 18233
An enzootic of pseudorabies in swine in California. 18257
Duck plague. 18263
Increased incidence of avian leukosis in response to excess vitamin A. 18280
- Acute infectious bovine rhinotracheitis and salmonellosis in a dairy herd. 18344
Pyrrolizidine alkaloid poisoning in calves. 18412
- MOSAIC (EGGPLANT)**
A new mosaic disease of brinjal (Solanum melongena L.). 18116
- MOSAIC (LETTUCE)**
Effect of MCPA on lettuce pre-inoculated with lettuce mosaic virus. 18075
- MOSAIC (SUGARCANE)**
Relationship between free amino acids and symptom expression in corn infected with maize dwarf mosaic virus or sugarcane mosaic virus. (Abstract). 17982
Ultrastructure of Zea mays leaf cells infected with Johnson grass strain of sugarcane mosaic virus. (Abstract). 17986
- MOSAIC (TOBACCO)**
Local lesion development in Turkish tobacco leaves heated after inoculation with tobacco mosaic virus. (Abstract). 17983
Investigations of the mechanism of the necrotic response of Nicotiana tabacum L. var. Samsun NN to infection with tobacco mosaic virus. 17985
High-temperature-induced insoluble coat protein in tobacco mosaic virus (TMV)-infected plants. (Abstract). 17993
An investigation of the tobacco mosaic virus multiplication process and its effect on the metabolism of the host. 17998
Studies on the effects of Hg(II) and sucrose on the mechanical transmission of tobacco mosaic virus ribonucleic acid to pinto bean (Phaseolus vulgaris L.). 18011
Cytokinin effect of benzyladenine: Increase of nucleic acid and protein synthesis in bean leaves. 18048
Cytomorphological features of TMV-INFECTED tobacco callus cells in tissue culture. 18063
Location of unique sequences in tobacco mosaic virus ribonucleic acid. 18457
- MOSAIC (WATERMELONS)**
Identification of strains of watermelon mosaic virus by serology and other characteristics. (Abstract). 18037
Aluminum foil and white polyethylene mulches to repel aphids and control watermelon mosaic. 18083
- MOTHS**
Rearing stored product insects for laboratory studies: Six species of moths. 17887
- MOTION PICTURES**
Mechanism of locust jumping. 17793
- MUCOSAL DISEASE**
Duck plague. 18263
- MULCHES**
Aluminum foil and white polyethylene mulches to repel aphids and control watermelon mosaic. 18083
- MURAMIDASE**
Results concerning humoral immunity of Pyrrhocoris apterus L. and Galleria mellonella F. 17842
- MUSCA AUTUMNALIS**
Further studies on the effect of bovine diet on face fly development. 17766

SUBJECT INDEX

MUSCA DOMESTICA

- Laboratory propagation of *Muscidifurax* raptor on face fly pupae. 17794
- MUSCA DOMESTICA**
Organothiocyanates as insecticides and carbamate synergists. 17785
Selective recovery of volatile products from house flies treated with radioactive insecticide chemicals and synergists. 17796
Metabolism of C14-labeled hemel in male house flies. 17798
Effect of the chemosterilant metepa on the housefly, *Musca domestica* L. 17848
Mechanisms of inhibition and uncoupling of oxidative phosphorylation in housefly mitochondria. 17899
- MUSCIDAE**
On morphology of larvae of the III instar in synanthropic species of flies from the genus *Hydrotaea* R.D. (Diptera, Muscidae). 17758
- MUSCIDIFURAX RAPTOR**
Laboratory propagation of *Muscidifurax* raptor on face fly pupae. 17794
- MUSCLES**
Mechanism of locust jumping. 17793
Mechanical and electrical activity in the indirect flight muscles of the honey bee. 17820
Permeability and excitation of insect muscle. 17896
Myoglobin in control and dystrophic chickens. 18250
- MUSCULAR DYSTROPHY**
Effects of selenium and vitamin E on nutritional muscular dystrophy in lambs. 18242
Myoglobin in control and dystrophic chickens. 18250
- MUSKMELONS**
Effect of soil sterilization and soil type on apparent susceptibility of two muskmelon varieties to *Fusarium oxysporum* f. sp. melonis. (Abstract). 17976
The tolerance of imported commodities to fumigation with methyl bromide. 18112
- MUTATION**
Physiological genetics of melanotic tumors in *Drosophila melanogaster*. V. Amino acid metabolism and tumor formation in the tu bw; st su-tu strain. 17902
Gamma-ray-induced mutations in *Drosophila melanogaster* oocytes: The phenomenon of dose rate. 17904
Tetraploid females in the hymenopteron, *Mormoniella*. 17906
Developmental characteristics of five lethal mutants of *Drosophila melanogaster*. 17908
Induced resistance to bacterial wilt in susceptible tobacco cuttings pretreated with avirulent mutants of *Pseudomonas*. (Abstract). 18029
- MUTATIONS**
Auxotrophic mutants of *Phytophthora* species. (Abstract). 18432
- MYCETOMA**
Mycetoma in a dog. 18221

MYCOLOGY

- Mycotic abortion in ewes produced by *Aspergillus fumigatus*: pathologic changes. 18184
Fungi in stored products. 18377
- MYCOPLASMA**
Mycoplasmas: their role in bovine disease. 18264
Basic biological characteristics of mycoplasma. 18277
- MYCOPLASMA AGALACTIAE**
Pathology a-d immunofluorescence studies of bovine mycoplasma mastitis. 18267
- MYCOPLASMA GALLISEPTICUM**
Serological tests for the detection of antibodies to *Mycoplasma gallisepticum* in chickens and turkeys. 18266
- MYCOPLASMA MELEAGRIDIS**
Mycoplasma meleagridis ('N' strain mycoplasma - PPLO): Relationship of air sac lesions and isolations in day old turkeys (*Meleagris Gallopavo*). 18211
- MYCOPLASMA MYCOIDES**
Contagious bovine pleuropneumonia and the problems associated with its control. 18276
- MYCOSIS**
Influence of a virus disease on the hemocytic anti-cryptogamic reactions in insects. 17893
Mycetoma in a dog. 18221
- MYCOTOXICOSIS**
Fungi in stored products. 18377
- MYOGLOBIN**
Myoglobin in control and dystrophic chickens. 18250
- MYRMICA RUBRA**
Studies of caste differentiation in *Myrmica rubra* L. 9. Maternal environment and the caste bias of larvae. 17791
- MYZUS PERSICAE**
Tests with insecticides for the control of resistant *Myzus persicae* (Sulzer) on year-round chrysanthemums. 18095
Isolation and electron microscopy of potato leafroll virus from plants. 18102
A new mosaic disease of brinjal (*Solanum melongena* L.). 18116
Anthocoris melanocerus as a predator of the green peach aphid on sugar beets and broccoli. 18121
Egg distribution as a factor in suppressing the green peach aphid by pruning. 18122
- NABIS AMERICOFERUS**
Field and laboratory studies on the ecology and morphology of *Nabis americanoferus* Carayon and its parasites in California. 17834
- NANOPHYETUS SALMINCOLA**
Transmission of salmon poisoning disease to dogs by *Nanophyetus salmincola* eggs. 18301
- NAPHTHALENEACETIC ACID**
Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. alphanaphthaleneacetic acid. 18397
- NASONIA**
Tetraploid females in the hymenopteron, *Mormoniella*. 17906

NATURAL CONTROL (INSECTS)

- Bionomics, enemies and population dynamics of *Javesella pellucida* (F.) (Hom., Delphacidae). 17875

NECATOR AMERICANUS

- The significance of the stay of *Necator americanus* larvae in the puppy lung on their further development. 18283

NECATORIASIS

- The significance of the stay of *Necator americanus* larvae in the puppy lung on their further development. 18283

NECROSIS

- Effects of watering frequency and saturation time on fine root necrosis of peach caused by *Pythium* spp. (Abstract). 17952
Investigations of the mechanism of the necrotic response of *Nicotiana tabacum* L. var. Samsun NN to infection with tobacco mosaic virus. 17985
Tobacco necrosis virus and its satellite virus. 18007

NEEDLE BLIGHT (PINUS)

- The relationships of ozone, *Lophodermium pinastri* and *Pullularia pullulans* to needle blight of Eastern white pine. 17972

NEMATOCIDES

- Evaluation of nematocides for controlling reniform nematodes on sweetpotatoes. 17918
Chemical control of the stem nematode *Ditylenchus dipsaci*. 18137
Effect of variety and fumigation on nematode populations in oats, wheat, and rye. 18147

NEMATODE-TRAPPING FUNGI

- Interactions of *Aphelenchus avenae* and some nematode-trapping fungi in dual culture. 18134

NEMATODES

- Interaction of *Meloidogyne javanica* and *Phytophthora parasitica* var. *nicotianae* on *Nicotiana tabacum* (N. C. 95.) (Abstract). 18036
Effect of temperature and variety on nematode development and gall production on soybeans infected with *Meloidogyne incognita* acrita. (Abstract). 18131
Attempted cultivation of nematode cells. (Abstract). 18133
Interactions of *Aphelenchus avenae* and some nematode-trapping fungi in dual culture. 18134
Quantitative changes in organic acids in roots and leaves from grapefruit seedlings infected with *Rhizopholus similis*. 18138
Control of endo- and ecto-parasitic nematodes in turf by hot-water treatments. 18139
Injury to *Heterodera tabacum* by high soil temperatures. (Abstract). 18143
The influence of an organic soil amendment on infectivity and reproduction of *Tylenchulus semipenetrans* on two citrus rootstocks. 18144
Effect of variety and fumigation on nematode populations in oats, wheat, and rye. 18147
Thread worms in the rhizosphere of the normal cotton and of that infected with the verticillous cotton wilt. 18149
Factors influencing the population fluctuation of *Pratylenchus penetrans* in soil. III. Host plant species. 18156

SUBJECT INDEX

OATS

Gastrointestinal parasitism in feeder calves of southern Illinois. 18279

Epizootiologic observations of canine filariasis in Georgia. 18330

Effect of desiccation on survival of the free-living stages of *Trichostrongylus colubriformis*. 18353

Changes in the efficacy of three anthelmintics during the maturation of a nematode (*Trichinella spiralis*). 18357

Dirofilaria immitis parasitic in the spinal cavity of a dog. 18362

Quantitative studies on the kinetics of establishment and expulsion of intestinal nematode populations in susceptible and immune hosts. *Nippostrongylus brasiliensis* in the rat. 18364

Studies on parasitic granuloma in the dog. 18365

Studies on the spring phenomenon in ovine helminthiasis. I. Spring rise in stabled sheep. 18372

Parasitic development of *Obeliscoides cuniculi* in rabbits. 18375

Use of fluorescent brightener as aid to studies of fungistasis and nematophagous fungi in soil. 18440

NEMATODIASIS

Nematodiasis in Louisiana dairy cattle. Impact of host nutrition upon experimental ostertagiasis in the bovine. 18212

NEOPLASMS

Studies on selection in natural and experimental populations of *Drosophila pseudoobscura*. 17781

Histopathological aids to the diagnosis of certain poultry diseases. 18284

Experimental transmission of two canine neoplasms: Lymphosarcoma and mast cell leukemia. 18310

NEOPLASTIC DISEASES

Effects of genetic cellular resistance on cell transformation and virus replication in chicken hematopoietic cell cultures infected with avian myeloblastosis virus (BAI-0A). 18295

NEORICKETTSIA HELMINTHOECA

Transmission of salmon poisoning disease to dogs by *Nanophyetus salmincola* eggs. 18301

NERVES

Electrical activity in insect nerve cell bodies. 17846

NERVOUS SYSTEM

Content and synthesis of gamma aminobutyric acid in the larval brain of *Drosophila melanogaster*. 17799

On the innervation of the prothoracic glands in *Papilio demoleus* L. (Lepidoptera). 17884

Permeability and excitation of insect muscle. 17896

Does the agent of scrapie replicate without nucleic acid. 18205

Histopathological aids to the diagnosis of certain poultry diseases. 18284

Electron microscopic studies of the nervous system of *Trichodorus christiei* (Abstract). 18447

NERVOUS SYSTEM DISEASES

An enzootic of pseudorabies in swine in California. 18257

NEUROSPORA CRASSA

Studies on the fungitoxicity of captan. VI. Decomposition of 35S-labelled captan by *Neurospora crassa* conidia. 18469

NEUTRON ACTIVATION ANALYSIS

Low temperature irradiation applied to neutron activation analysis of mercury in human whole blood. 18484

NEWCASTLE DISEASE

Degradation of cellular ribonucleic acid in Newcastle disease virus infected cells. 18258

Pathological changes of acute Newcastle disease in an outbreak in Miyazaki Prefecture with special reference to those of the cloaca. 18268

NEWCASTLE DISEASE VIRUS

Isolation and characterization of three plaque-type clones of the hickman strain of newcastle disease virus. 18235

Newcastle disease: A legal interpretation. 18245

NICOTIANA GLUTINOSA

Cytochrome oxidase and mitochondrial protein in extracts of leaves of *Nicotiana glutinosa* L. Infected with tobacco mosaic virus. 18045

NIPPOSTRONGYLUS BRASILIENSIS

Quantitative studies on the kinetics of establishment and expulsion of intestinal nematode populations in susceptible and immune hosts. *Nippostrongylus brasiliensis* in the rat. 18364

NITRITES

Influence of nitrite and hydroxylamine on performance and vitamin A and carotene metabolism of ruminants. 18183

NITROGEN

The effect of carbon source, carbon to nitrogen ratios, and organic amendments on survival of propagules of *Verticillium albo-atrum* in soil. 17921

Influence of nitrogen form on the incidence and severity of *Aphanomyces* root rot of peas. (Abstract). 17966

Influence of nitrogen nutrition on *Fusarium* root rot of pinto bean and on its suppression by barley straw. 18028

Oxalate metabolism in sheep and its effect on the anion-cation balance. 18188

The interrelationships of *Rhizoctonia solani* and *Helminthosporium vagans*, nitrogen, and variety on alkaloids in *Festuca arundinacea*. (Abstract). 18443

Effect of defoliants on carbohydrate and nitrogen metabolism in cotton plant leaves. 18448

NITROGEN COMPOUNDS

Role of nitrogen in wood deterioration. VI. Mycelial fractions and model nitrogen compounds as substrates for growth of *Polyporus versicolor* and other wood-destroying and wood-inhabiting fungi. 18018

NOCTUIDAE

New Zealand Noctuidae (Lepidoptera): Summary of known host plants and a bibliography relevant to the biology of the group. 17749

Correction coefficients for prognosing the development of insects by sums of effective temperatures (*Agrotis segetum* Schiff taking of example). 17810

Meteorological factors affecting the activity of night flying Macro-Lepidoptera. 17832

NOMENCLATURE

List of Phytopathological terms. 17932

NONYL ACETATE, N

Defense mechanisms of arthropods. XXI. Formic acid and n-nonyl acetate in the defensive spray of two species of *Helluomorphoides*. 17816

NOTODONTIDAE

Meteorological factors affecting the activity of night flying Macro-Lepidoptera. 17832

NUCLEIC ACIDS

Cytokinin effect of benzyladenine: Increase of nucleic acid and protein synthesis in bean leaves. 18048

Does the agent of scrapie replicate without nucleic acid. 18205

Degradation of cellular ribonucleic acid in Newcastle disease virus infected cells. 18258

Studies on the replication of African horse-sickness virus in two different cell line cultures. 18304

Wound-induced gibberellins. 18467

NUCLEOPROTEINS

Nucleoprotein synthesis during metamorphosis in *Drosophila virilis*. 17872

NURSERIES

Alternaria tenuis on *Antirrhinum*. 18033

Ornamentals. 18164

NUTRIENT SOLUTIONS (PLANTS)

Experiments and considerations on the anomalies of tomatoes of the super marmande type in hot houses, connections with the use of some plant hormones. 17933

Effect of calcium availability on alfalfa grown in calcareous high sodium soils. 18464

NUTRITION

Influence of nitrogen nutrition on *Fusarium* root rot of pinto bean and on its suppression by barley straw. 18028

A comparative nutritional study of *Alternaria raphani*, *A. brassicae*, and *A. brassicola* with special reference to *A. raphani*. 18069

Physiology of germination of chlamydospores of *Phytophthora cinnamomi*. 18463

NYMPHS

The development of *Theileria parva* in the salivary glands of the tick, *Rhipicephalus appendiculatus*. 17873

Cross protection between a plant virus and potato psyllid yellows. 18067

OATS

Effect of moderate adult resistance on penetration, hyphal growth rates, and urediospore production by crown rust of oats. (Abstract). 17995

Tolerance to barley yellow dwarf in winter oats. 18050

Stand loss of small grains in Florida. 18057

Natural acquisition compared with mechanical inoculation of six-spotted leafhoppers for transmission of the oat blue dwarf virus. (Abstract). 18085

Effect of variety and fumigation on nematode populations in oats, wheat, and rye. 18147

Effect of 3-indoleacetic acid on phospholipid membrane components of *Avena coleoptiles*. 18481

SUBJECT INDEX

OBELISCOIDES CUNICULI

OBELISCOIDES CUNICULI

Parasitic development of *Obeliscoides cuniculi* in rabbits. 18375

ODONATA

On the Metacercaria of *Prosthogonimus putschkowskii* in *Sympetrum decoloratum* (Odonata: insecta) with observations on its development in chicks. 18370

ODORS

Toxic effects of odorous trace organics. 18417

OEDIPODA COERULESCENS

On the tetrapyrrolic pigments, essential constituents of homochrome:coloration in *Oedipoda coerulescens* L. (Aceridae, Orthoptera). 17895

OESOPHAGOSTOMUM DENTATUM

Helminthic infestations of piglets with reference to lesions encountered. 18371

OESTRUS OVIS

A temperature study of the overwintering site of the sheep bot fly *Oestrus ovis* L. 18373

OILS

Attempts at combatting oystershell scale, *Lepidosaphes ulmi* (L.), on apple trees in orchards of Quebec. 18109

OILSEEDS

Relation of invasion of cereal grains and oil seeds by storage fungi to increase in total and major individual fatty acids. (Abstract). 18031

OLFACTOMETERS

New techniques to bioassay the sex attractant of pink bollworms with olfactometers. 17829

Pre-imaginal conditioning in *Drosophila*. 17858

OLIGOSACCHARIDES

Oligosaccharidases from *Maeraanthorhynchus hirudinaceus* (Acanthocephala) from swine. 18186

ONCOGENIC VIRUSES

Oncogenesis in the (tu) y2v;vg strain of *Drosophila melanogaster*. 17787

ONIONS

The increased attack of *Ditylenchus dipsaci* on onion caused by some fungicides. 18132

Factors influencing the population fluctuation of *Pratylenchus penetrans* in soil. III. Host plant species. 18156

OPISTHORCHIS

Helminthic infestations of piglets with reference to lesions encountered. 18371

OPUNTIA

With pests in the luggage. 18126

ORANGES

Exocortis in Ortanique orange. 18001

The influence of an organic soil amendment on infectivity and reproduction of *Tylenchulus semipenetrans* on two citrus rootstocks. 18144

ORGANIC COMPOUNDS

Organothiocyanates as insecticides and carbamate synergists. 17785

Selective recovery of volatile products from house flies treated with radioactive insecticide chemicals and synergists. 17796

Tests with insecticides for the control of resistant *Myzus persicae* (Sulzer) on year-round chrysanthemums. 18095

Methyl mercury compounds in fish. 18199

Toxic effects of odorous trace organics. 18417

ORGANIZATIONS

Organisation of anti-rat campaigns. 18177

ORGANOPHOSPHORUS COMPOUNDS

A review of drug toxicity in the cat. 18420

ORIBATEI

Gamasid mites (Gamasoidea) as vectors of the disease causative agents. 17915

ORNAMENTAL PLANTS

Ornamentals. 18164

ORNITHONYSSUS SYLVIARUM

Northern fowl mite control on mature turkeys on range. 18350

ORNITHOSIS

Avirulent mutant of a strain of ornithosis agent obtained by gamma irradiation. 18195

An outbreak of Ornithosis in fowls. 18318

ORTHOPODOMYIA

A prodrome of the genus *Orthopodomyia* (Diptera, Culicidae). 17775

ORTHOPTERA

The phylogenetic development of food selection in certain orthopteroids. 17825

Biting in Orthoptera and their allies. 17826

On the tetrapyrrolic pigments, essential constituents of homochrome:coloration in *Oedipoda coerulescens* L. (Aceridae, Orthoptera). 17895

OSTERTAGIA

Nematodiasis in Louisiana dairy cattle. Impact of host nutrition upon experimental ostertagiasis in the bovine. 18212

OSTERTAGIASIS

Nematodiasis in Louisiana dairy cattle. Impact of host nutrition upon experimental ostertagiasis in the bovine. 18212

OSTRINIA NUBILALIS

Field tests of chemicals for control of the European corn borer. 17831

OTITIS

Detection of antibiotic-fast staphylococci in otitis externa in dogs. 18346

OVA

Studies on the spring phenomenon in ovine helminthiasis. I. Spring rise in stabled sheep. 18372

OVARIAN CYSTS

Cystic ovarian disease in dairy cattle: With special reference to its treatment using a combination of Chorionic gonadotrophin and progesterone. 18200

OVARIES

Analysis of the development of oviducts and the developmental relations between oviducts and ovaries in *Drosophila virilis*. Part one: Development of oviducts under normal and experimental conditions. Part two: Analysis of alterations occurring in oviducts during imaginal life. 17782

On the biology of several Trechinae and Spodrinae. (Insecta, Coleoptera). 17808

OVIDUCTS

Analysis of the development of oviducts and the developmental relations between oviducts and ovaries in *Drosophila virilis*. Part one: Develop-

ment of oviducts under normal and experimental conditions. Part two: Analysis of alterations occurring in oviducts during imaginal life. 17782

Experimental colibacillosis and the development of carries in laying hens. 18206

OVIPOSITION

Habitat selection by *Lipara lucens* Mg. (Diptera, Chloropidae) and its survival value. 17761

OVIPOSITORS

Life history of the looper *Phigalia titea* in Virginia. 17889

Anthocoris melanocerus as a predator of the green peach aphid on sugar beets and broccoli. 18121

OVULATION

Further studies on the effect of bovine diet on face fly development. 17766

Laboratory propagation of *Muscidifurax* raptor on face fly pupae. 17794

Preliminary observations on the effect of alcohol and oil films on the oviposition of *Culex pipiens quinquefasciatus* (Say). 17844

Winter oviposition by the alfalfa weevil in Virginia. 17900

Oviposition preferences of western corn rootworms for various soil surface conditions. 18100

Response of beef cows to exogenous progesterone and estradiol at various stages postpartum. 18192

OXALATES

Oxalate metabolism in sheep and its effect on the anion-cation balance. 18188

Oxalate metabolism in sheep II. Effect of low level Halogeton glomeratus intake on electrolyte metabolism. 18262

Oxalate biosynthesis and pathways for glucose catabolism in *Sclerotium rolfsii* Saec. 18459

OXALIC ACID

Oxalic acid biosynthesis by *Sclerotium rolfsii*. (Abstract). 18460

OXALIS CERNUA

On the dispersal of the bulbs of *Oxalis cernua* Thunb. by mole-rats (*Spalax ehrenbergi* Nehring). 18163

OXYDEMETONMETHYL

Control of the elm leaf beetle in Arizona. 18128

OXYGEN

Mechanisms of inhibition and uncoupling of oxidative phosphorylation in housefly mitochondria. 17899

Developmental characteristics of five lethal mutants of *Drosophila melanogaster*. 17908

OXYTETRACYCLINE

Qualitative identification of chlortetracycline and oxytetracycline in feeds. 18491

OZONE

Selective staining of dead cells in bean leaves injured by ozone. 17931

The relationships of ozone, *Lophodermium pinastri* and *Pullularia pullulans* to needle blight of Eastern white pine. 17972

SUBJECT INDEX

PEAS

- The response of bean to ozone as related to infection by *Pseudomonas phaseolicola*. (Abstract). 18009
- PACHYLOBIUS PICIVORUS**
A description of the pupa of the pales weevil, *Hylobius pales*, and a method for identifying its sex. 17773
- PACIFIC NORTHWEST**
The equine respiratory disease syndrome in the Pacific Northwest. 18272
- PALEXORISTA**
A revision of the oriental species of *Palexorista* Townsend (Diptera: Tachinidae, Sturmiini). 17744
- PANAMA CANAL ZONE**
Culicoides control in the Canal Zone by water management. 17912
- PANCREAS**
Alterations in the response and functions of the chicken pancreas induced by feeding unheated and autoclaved soybean meal. 18314
- PANISOPSIS**
Two new species of Thyasidae (Acarina) from Nikko National Park Japan. 17752
- PANONYCHUS CITRI**
Introducing and establishing the noninclusion virus of the citrus red mite in citrus groves. 18117
- PAPAVER**
The study of the effect of amitrol on the respiration and activity of some enzymes in poppy plants (*Papaver somniferum* L.). 18479
- PAPAVER SOMNIFERUM**
The study of the effect of amitrol on the respiration and activity of some enzymes in poppy plants (*Papaver somniferum* L.). 18479
- PAPILIO DEMOLEUS**
On the innervation of the prothoracic glands in *Papilio demoleus* L. (Lepidoptera). 17884
- PAPILLOMA**
The response of various tissues in neonate calves to bovine papilloma virus (BPV). 18251
- PARAQUAT**
Extermination of *Eichhornia azurea* Kunth, *Agave de cordao*, on the Ribeira river by means of herbicide applications. 18166
- PARASITIC INSECTS**
Notes on Megalynidae (Hym. Ichneumonidae) and description of new species from Madagascar. 17751
Laboratory propagation of *Muscidifurax* raptor on face fly pupae. 17794
The development of *Theileria parva* in the salivary glands of the tick, *Rhipicephalus appendiculatus*. 17873
Bionomics, enemies and population dynamics of *Javesella pellucida* (F.) (Hom., Delphacidae). 17875
Life history of the looper *Phigalia titea* in Virginia. 17889
Tetraploid females in the hymenopteron, *Mormoniella*. 17906
Cereal leaf miner in the South-east Region. 18092
Resistance of cattle to the tick *Boophilus microplus* (Canestrini). II. Stages of the life cycle of the parasite against which resistance is manifest. 18351
- PARASITIC PLANTS**
Eastern dwarf mistletoe on jack pine in Manitoba. 17926
- PARASITISM**
Parasitic and free-living cycles in entomogenous nematodes of the genus *Deladenus*. 17731
Simple field and laboratory method for recovering living ticks (Ixodoidea) from hosts. 17733
The infection of *Boophilus microplus* with *Babesia bigemina*. 17795
Studies on the morphology and biology of *Lecanium fletcheri* Ckll. (Homoptera, Coccoidea) and related species. 17813
Field and laboratory studies on the ecology and morphology of *Nabis americoferus* Carayon and its parasites in California. 17834
Pathogenic and cultural variation in *Phytophthora nicotianae* var *parasitica* from greenhouse plants. 18064
The summer biology of *Puccinia striiformis* in southeastern Washington. I. Induction of infection during the summer. 18072
Ultrastructure of host and parasite in compatible and incompatible interactions of *Zea mays* L. with *Puccinia sorghi* Schw. 18074
Survival of the balsam woolly aphid on *Abies* logs. 18084
Control of endo- and ecto-parasitic nematodes in turf by hot-water treatments. 18139
Studies of the suitability of certain *Heliothis* spp. as a host for *Cardiochiles nigriceps* Vierick. 18141
The influence of an organic soil amendment on infectivity and reproduction of *Tylenchulus semipenetrans* on two citrus rootstocks. 18144
Plant-parasitic nematodes in grape and raspberry soils of Ontario and a comparison of extraction techniques. 18153
Gastrointestinal parasitism in feeder calves of southern Illinois. 18279
The connection between sunspot cycles and mass mortality among vertebrates and non-vertebrates due to parasitic activity. 18327
Relationship between infecting dose, muscle parasitism, and antibody response in experimental trichinosis in rabbits. 18329
Effect of desiccation on survival of the free-living stages of *Trichostrongylus colubriformis*. 18353
Experimental infection of gnotobiotic *Tenebrio molitor* and white rats with *Hymenolepis diminuta* (Cestoda: Cyclophyllidae). 18363
Lesions caused by the hepatic trematode, *Metorchis conjunctus*, Cobbold, 1860; A comparative study in *Carnivora*. 18369
Studies on the spring phenomenon in ovine helminthiasis. I. Spring rise in stabled sheep. 18372
A temperature study of the overwintering site of the sheep bot fly *Oestrus ovis* L. 18373
Parasitic development of *Obeliscoides cuniculi* in rabbits. 18375
Helminths as vehicles and synergists of microbial infections. 18376
- PARATHION**
Effects on populations of corn rootworms of aldrin residues in soil four years after application. 18087
- PARATHYROID GLANDS**
Mineral and endocrine interrelationships in renal calcification. 18292
- PARATRIOZA COCKERELLI**
Cross protection between a plant virus and potato psyllid yellows. 18067
- PARTHENOCARPY**
Development of parthenocarpic and non-parthenocarpic syconia of *Ficus carica* L. cv. King in relation to endogenous and exogenous growth regulators. 17927
- PARTHENOGENESIS**
Parthenogenesis in gum emperor moth *Antheraea eucalypti* (Scott). 17840
- PARTICLE SIZE DETERMINATION**
The statistical description of a spray in terms of drop velocity, size, and position. 18488
- PARTURITION**
The effect of intramammary infection during the dry period on the milk production of the affected quarter at the start of the succeeding lactation. 18194
- PASTEURELLA MULTOCIDA**
A method for evaluation of vaccines containing *Pasteurella multocida*. 18380
- PASTURE MANAGEMENT**
A fern poisoning-like disease observed in an improved pasture. 18261
- PASTURES**
Determination of cesium-137 and related sampling problems of dairy cattle feeds, 1962-1967. 18197
- PATENTS**
Herbicide composition and method. Patent 3,407,056. 18471
Heterocyclically substituted monohalogeno-1,3,5-triazines. Patent 3,407,201. 18490
- PEACHES**
Effects of watering frequency and saturation time on fine root necrosis of peach caused by *Pythium* spp. (Abstract). 17952
Dispersal patterns of *Monilinia laxa* spores in peach, prune, apricot, and almond trees during early spring. (Abstract). 18435
- PEANUTS**
Effect of soil fungicides on development of fungi in soil and on kernels of groundnut. 18003
Factors influencing aflatoxin accumulation in peanut kernels and the associated mycoflora. 18043
Extent of *Aspergillus flavus* and *Fusarium oxysporum* germination in soil and in the rhizosphere of peanut. (Abstract). 18445
- PEARLMILLET**
Chromosomal alternations in pearl millet induced by gammarays. 18465
- PEARS**
Permeability changes in pear fruits associated with pathogenesis by *Erwinia amylovora*. (Abstract). 17961
- PEAS**
Comparative gibberellin relationships in tall and dwarf peas (*Pisum sativum* L.). 17916
Mechanism of increased root rot in virus-infected peas. 17950

SUBJECT INDEX

PEAT

- Number of zoospores of *Aphanomyces euteiches* required for infection on peas. (Abstract). 17951
- Influence of nitrogen form on the incidence and severity of *Aphanomyces* root rot of peas. (Abstract). 17966
- The role of cotton and bean seed exudate in pre-emergence infection by *Rhizoctonia solani*. 17994
- Cultural and pathogenicity studies of induced variants of bean and pea root rot *Fusarium* species. 18078
- Resistance of southern peas to the cowpea curculio. 18125
- Nutritional requirements of a tomato tissue culture: Growth promoting factors from peas. 18478

PEAT

- The influence of an organic soil amendment on infectivity and reproduction of *Tylenchulus semipenetrans* on two citrus rootstocks. 18144

PECTIN TRANSELMINASE

- Auxin effects on the activity of pectin-transeliminase in vitro. 18430

PECTINOPHORA GOSSYPIELLA

- A simplified field cage for trapping pink bollworm adults. 17819
- New techniques to bioassay the sex attractant of pink bollworms with olfactometers. 17829

PEDICULUS HUMANUS

- Studies on the biological properties of *Toxoplasma gondii* in the body of insects, using *Pediculus humanus* L. as test animals. 17812

PENICILLIN

- A comparative study of cell wall glycopeptide structure of some bovine vibrios. 18247
- Psittacosis-lymphogranuloma venereum agent isolated during an abortion epizootic in goats. 18286

PENICILLIUM

- Fungi in stored products. 18377

PENTACHLORONITROBENZENE

- The suppression of actinomycetes by PCNB in culture media used for enumerating soil bacteria. 17980

PEPEROMIA OBTUSIFOLIA

- Pathogenic and cultural variation in *Phytophthora nicotianae* var *parasitica* from greenhouse plants. 18064

PEPPERMINT OIL

- Pre-imaginal conditioning in *Drosophila*. 17858

PERENNIAL PLANTS

- Herbaceous annual and perennial weeds. 18174

PERIPLANETA AMERICANA

- Influence of repellency on the efficacy of blatticides. IV. Comparison of four cockroach species. 17814
- Studies on insect (*Periplaneta americana* L.) phosphofructokinase. 17827
- Electrical activity in insect nerve cell bodies. 17846
- Permeability and excitation of insect muscle. 17896
- PERITHECIA**
- Ecology and possible significance of *Perithecia* of *Calonectria nivalis* in the Pacific Northwest. 17971
- Effect of fungal estrogen F-2 on the production of perithecia by *Fusarium roseum Graminearum*. (Abstract). 18442

PERMEABILITY

- Permeability and excitation of insect muscle. 17896

PERONOSPORA PARASITICA

- Laboratory tests of fungicides against *Peronospora parasitica* (Pers. ex. Fr.) Fr. 18433

PEST CONTROL

- Pesticides in the coming struggle for food. 17936
- Studies on the chemical control of rice blast caused by *Piricularia oryzae* Cav. 17942
- The effect of polyploidy on plant virus replication and control. 17991
- Introduction to *Bacillus thuringiensis* and its uses. 18103
- Alberta, 255,000 square miles, free of rats. 18175
- Fumigation-an effective method of rat control in Kuttanad in Alleppey district (Kerala). 18176
- Organisation of anti-rat campaigns. 18177

PESTICIDE APPLICATION

- Helicopter application of phytoactin to whitebark pine. (Abstract). 17958
- Further evaluation of acaricides for brown wheat mite control on winter wheat in Kansas, 1963-65. 18091
- Preventing fish and wildlife losses. 18385

PESTICIDE RESIDUES

- Preventing fish and wildlife losses. 18385
- The effect of environmental and biological factors on the persistence of malathion applied in low volume technical and emulsifiable concentrate forms to cotton plants. 18386
- Detoxification of pesticidal residues in fish and shellfish. 18393
- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. Diuron. 18396
- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. alphanaphthaleneacetic acid. 18397
- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. Trifluralin. 18398
- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. Ethyl 4,4'-Dichlorobenzilate. 18399
- Analytical problems: Mercury in the general environment. 18408
- Notice of filing of petition regarding pesticide chemicals. kirk, j k. 18476

PESTICIDES

- Pesticides and pollution, SB959.0U4. 17863
- Pesticides in the coming struggle for food. 17936
- Increasing the efficacy of fungicidal control of black pod rot of cacao incited by *Phytophthora palmivora*. (Abstract). 18041
- Tests with insecticides for the control of resistant *Myzus persicae* (Sulzer) on year-round chrysanthemums. 18095

- The effect of exposure to dieldrin on avoidance response extinction and conditioned heart rate in sheep. 18196

- Water pollution. Effects of pollution on fish life. General aspects of water pollution biology. 18395

- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. alphanaphthaleneacetic acid. 18397

- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. Ethyl 4,4'-Dichlorobenzilate. 18399

- Macroinvertebrates. Fresh water. 18402

- Toxic effects of odorous trace organics. 18417

- Notice of filing of petition regarding pesticide chemicals. kirk, j k. 18476

- Pesticides, their use and misuse. 18495

PETROBIA LATENS

- Further evaluation of acaricides for brown wheat mite control on winter wheat in Kansas, 1963-65. 18091

PETROLATUM

- Patch canker of *Hevea brasiliensis* caused by *Phytophthora palmivora*. 17967

PHARYNX

- The formation of the cuticular ridges in the larval pharynx of the blowfly (*Calliphora vicina* R.-D.). 17809

PHASMATIDAE

- Improvement of a method for culturing the eggs of the Phasid *Carausius morosus* Br. deprived of the chorion. 17894

PHENOLS

- Characterization of bovine viral diarrhea viruses by their interactions with susceptible host cells. 18243

PHENYLALANINE

- Physiological genetics of melanotic tumors in *Drosophila melanogaster*. V. Amino acid metabolism and tumor formation in the tu bw; st su-tu strain. 17902

PHEOPHYTINS

- Constituents of the cotton bud. XIII. Further studies on a nonpolar feeding stimulant for the boll weevil. 18124

PHERMONES

- Reproductive behavior of the potato tuberworm, *Phthorimaea operculella* (Zeller), (Lepidoptera: Gelechiidae) and the effect of the chemosterilant metepa. 17836

PHEROMONES

- Field studies of sex attraction in the boll weevil. 17790
- Difference in response of two strains of screw-worm flies to the male pheromone. 17823
- A sex pheromone from the citrus mealybug. 17828

PHIGALIA TITEA

- Life history of the looper *Phigalia titea* in Virginia. 17889

PHLEBOTOMUS

- Some observations on compulsory feeding of sandflies (Diptera, Phlebotominae) with the culture of leptomonads. 17778

PHORATE

- Loss of phorate from a granular formulation applied in the soil. 18110

SUBJECT INDEX

PHYTOPHTHORA MEGASPERMA

- Notice of filing of petition regarding pesticide chemicals. 18388
- PHORESY**
Biological and ecological studies on Caloglyphus mite (Acarina: Acaridae) associated with Scarabaeidae. 17743
- PHORTIOECA PHORASPOIDES**
Reproduction of some poorly known species of Blattaria. 17765
- PHOSPHATASES**
Sub-units of acid phosphatase-I in *Drosophila melanogaster*: Reversible dissociation in vitro. 17862
- PHOSPHATES**
Influence of micro-organisms on the distribution in roots of phosphate labelled with phosphorus-32. 18424
- PHOSPHINE**
Studies on hydrogen phosphide against the red flour beetle in a column of paddy. 18113
- PHOSPHOLIPIDS**
Lipids of Venezuelan equine encephalomyelitis virus and their relationship to the lipids of the host. 18256
Effect of 3-indoleacetic acid on phospholipid membrane components of *Avena coleoptiles*. 18481
- PHOSPHORIC ACID ESTERS**
Comparative toxicity (Mammalia, Insecta, Acarina) of recent S,S-dimethyl S-benzyl derivatives substituted for tri- and tetrathio phosphoric acids. 17800
- PHOSPHORUS**
Tests with insecticides for the control of resistant *Myzus persicae* (Sulzer) on year-round chrysanthemums. 18095
Effect of organo-Phosphorus insecticides on the warm blooded animals and cure thereof. 18193
Mineral and endocrine interrelationships in renal calcification. 18292
Phosphorus content during development of *Claviceps purpurea*. 18454
- PHOSPHORUS COMPOUNDS**
Gas chromatographic detector for simultaneous sensing of phosphorus and sulfur-containing compounds by flame photometry. 18483
- PHOSPHORUS ISOTOPES**
Food distribution within colonies of the Argentine ant, *Iridomyrmex humilis* (Mayr). 17859
Influence of micro-organisms on the distribution in roots of phosphate labelled with phosphorus-32. 18424
- PHOSPHORYLATION**
Mechanisms of inhibition and uncoupling of oxidative phosphorylation in housefly mitochondria. 17899
- PHOTOGRAPHY**
Parthenogenesis in gum emperor moth *Antheraea eucalypti* (Scott). 17840
The statistical description of a spray in terms of drop velocity, size, and position. 18488
- PHOTOMETRY**
Gas chromatographic detector for simultaneous sensing of phosphorus and sulfur-containing compounds by flame photometry. 18483
- PHOTOPERIODISM**
Photoinhibitory function of the dorsal ocelli in the phototactic reaction of the migratory locust *Locusta migratoria* L. 17786
Studies of caste differentiation in *Myrmica rubra* L. 9. Maternal environment and the caste bias of larvae. 17791
Ecological characteristics of the diapause of the *Phytonome* of the Luzerne *Hypera variabilis*. (Col. Curculionidae). 17817
Field and laboratory studies on the ecology and morphology of *Nabis americoferus* Carayon and its parasites in California. 17834
Endogenous diurnal rhythm of pupation in a mosquito population. 17868
Role of photoperiod, temperature, and injury in induction and termination of the pupal diapause of *Heliothis zea* (Boddie). 17877
The growth, development and control of common ragweed. 18160
Growth, development and control of wild radish. 18162
Red light induction of gibberellin synthesis in leaves. 18468
- PHOTOSENSITIZATION**
Photoinhibitory function of the dorsal ocelli in the phototactic reaction of the migratory locust *Locusta migratoria* L. 17786
- PHOTOTROPISM**
Photoinhibitory function of the dorsal ocelli in the phototactic reaction of the migratory locust *Locusta migratoria* L. 17786
- PTHORIMAEA OPERCULELLA**
Reproductive behavior of the potato tuberworm, *Phthorimaea operculella* (Zeller), (Lepidoptera: Gelechiidae) and the effect of the chemosterilant metepa. 17836
- PHYLLACHORA MAYDIS**
Preliminary studies on *Phyllachora maydis* affecting corn in Central America. (Abstract). 18054
- PHYMATOTRICHUM OMNIVORUM**
Pectolytic enzyme production by *Phymatotrichum omnivorum*. (Abstract). 18427
- PHYSIOLOGY**
Growth of arboviruses in monolayers from subcultured mosquito embryo cells. 17870
The effect of carbon source, carbon to nitrogen ratios, and organic amendments on survival of propagules of *Verticillium albo-atrum* in soil. 17921
Relation of uredial and urediospore counts to epiphytic development of wheat rusts and the value of the counts in predicting disease. (Abstract). 17962
Serological diagnostic method without isolation of *Erwinia amylovora* culture from a diseased plant. 18002
Physiologic race changes in barley mildew 1964-67. 18130
The effect of ultra-violet radiation on the invasion, survival and fertility of larvae of *Heterodera rostochiensis*. 18136
The effect of amino acid antimetabolites on four nematode species and their host plants. 18146
Gamma irradiation of *Heterodera schachtii*. 18152
- The effect of environment on sex determination in *Heterodera rostochiensis*. 18154
Hyperglycemia induced by 5-hydroxytryptamin in *Achatina fulica* (gastropod mollusca). 18178
Electron microscopic studies on the development of vesicular stomatitis virus. 18236
Basic biological characteristics of mycoplasma. 18277
A fluorescent micro-plaque assay for hog cholera virus. Localization of infection with homologous antiserum. 18291
Studies on the replication of African horse-sickness virus in two different cell line cultures. 18304
Biochemical and biophysical properties of canine distemper virus. 18306
Changes in protein and nucleic acid metabolism in baby hamster kidney cells infected with foot-and-mouth disease virus. 18308
Some factors affecting interferon production by foot-and-mouth disease virus in bovine tissue cultures. 18316
Interference between modified and virulent strains of foot-and-mouth disease virus. 18317
- PHYTOACTIN**
Helicopter application of phytoactin to whitebark pine. (Abstract). 17958
Isolation, identification, purification, and biological properties of the antibiotic phytoactin. 18489
Chemistry and physiologic action of the antibiotic phytoactin. 18492
- PHYTOALEXIN**
Phytoalexin production in corn resistant to *Helminthosporium turcicum*. 18020
- PHYTOPATHOLOGY**
List of Phytopathological terms. 17932
Annals of the Phytopathological Society of Japan. 18044
- PHYTOPHTHORA**
A *Phytophthora* from subterranean clover roots that attacks soybean and other legumes. (Abstract). 18004
- PHYTOPHTHORA CACTORUM**
The role of IAA in host reaction to different isolates of *Phytophthora cactorum*. (Abstract). 17955
- PHYTOPHTHORA CAPSICI**
Auxotrophic mutants of *Phytophthora* species. (Abstract). 18432
- PHYTOPHTHORA CINNAMONI**
Physiology of germination of chlamydospores of *Phytophthora cinnamomi*. 18463
- PHYTOPHTHORA DRECHSLERI**
Auxotrophic mutants of *Phytophthora* species. (Abstract). 18432
- PHYTOPHTHORA INFESTANS**
The relation of rainfall, relative humidity, and temperature to late blight of potato in Sedes, Sindos-Lahanokipi of Nomos Thessaloniki. 17925
- PHYTOPHTHORA MEGASPERMA**
Mycelial growth and production of oospores as affected by beta-sitosterol, and the germination of oospores of *Phytophthora megasperma* var. *sojae*. (Abstract). 17979

SUBJECT INDEX

PHYTOPHTHORA PALMIVORA

PHYTOPHTHORA PALMIVORA

Patch canker of *Hevea brasiliensis* caused by *Phytophthora palmivora*.

17967

Increasing the efficacy of fungicidal control of black pod rot of cacao incited by *Phytophthora palmivora*. (Abstract).

18041

PHYTOPHTHORA PARASITICA NICOTIANAE

Interaction of *Meloidogyne javanica* and *Phytophthora parasitica* var *nicotianae* on *Nicotiana tabacum* (N. C. 95). (Abstract).

18036

Pathogenic and cultural variation in *Phytophthora nicotianae* var *parasitica* from greenhouse plants.

18064

PICEA GLAUCA

Successful tissue transplantation of auxin-dependent tumours and some of its problems.

17935

PICEA MARIANA

Factors affecting the infection of black spruce (*Picea mariana* Mill.) transplants by *Cylindrocylindrium scoparium*.

18056

PIGMENTS

Techniques of marking insects with micronized fluorescent dust with especial emphasis on marking millions of *Lygus hesperus* for dispersal studies.

17886

PIGMENTS (INSECT)

On the tetrapyrrolic pigments, essential constituents of homochrome coloration, in *Oedipoda coerulescens* L. (Acridae, Orthoptera).

17895

PINUS

The pathogenicity of secondary and tertiary basidiospores of *Cronartium fusiforme*.

18052

PINUS ALBICAULIS

Helicopter application of phytoactin to whitebark pine. (Abstract).

17958

PINUS BANKSIANA

Eastern dwarf mistletoe on jack pine in Manitoba.

17926

PINUS ECHINATA

Insects affecting seed production of Shortleaf pine in the Georgia piedmont.

17748

PINUS ELLIOTTII

Attack of the black turpentine beetle on roots of slash pines.

18118

PINUS MONTICOLA

Comparative physiology of *Pinus monticola* Dougl. resistant and susceptible to *Cronartium ribicola* J. C. Fisch. ex. Rabenh.

18000

Concentrations of solutes in blister rust infections of western white pine. (Abstract).

18030

PINUS PONDEROSA

Studies of the insect complex affecting seed production of ponderosa pine in California.

18101

PINUS RESINOSA

Two new hardwood hosts of *Fomes annosus*.

17930

Red pine needle structure.

18451

PINUS STROBUS

The relationships of ozone, *Lophodermium pinastri* and *Puccinia pullulans* to needle blight of Eastern white pine.

17972

PINUS TAEDA

Pathogenicity of some blue-stain fungi in the genus *Ceratocystis*. (Abstract).

17945

Genetic variation in susceptibility to fusiform rust in a wild population of loblolly pine. (Abstract).

18010

PIPERONYL BUTOXIDE

Pyrethrins-piperonyl butoxide applied as a fog in an empty grain bin.

17897

PIRICULARIA ORYZAE

Studies on the chemical control of rice blast caused by *Piricularia oryzae* Cav.

17942

PISUM SATIVUM

Comparative gibberellin relationships in tall and dwarf peas (*Pisum sativum* L.).

17916

Effect of 3-indoleacetic acid on phospholipid membrane components of *Avena coleoptiles*.

18481

PLACENTA

Factors affecting the storage, excretion, and placental transfer of dieldrin in dairy cattle.

18218

Placental pathology of experimentally-induced enzootic abortion in ewes.

18300

PLAGUE

Biology of vector-associated diseases in Vietnam.

17913

Duck plague.

18263

PLANOCOCCUS CITRI

A sex pheromone from the citrus mealybug.

17828

PLANT ANALYSIS

Fungistatic constituents in citrus varieties resistant to the mal-secco disease.

18046

PLANT ANATOMY

Red pine needle structure.

18451

PLANT BIOCHEMISTRY

Pectin methyl-trans-eliminase as the maceration factor of *Sclerotinia fructigena* and its significance in brown rot of apple.

17965

Fungistatic constituents in citrus varieties resistant to the mal-secco disease.

18046

The effect of species of *Allium* on soil bacteria in relation to germination of sclerotia of *Sclerotium cepivorum* Berk.

18434

Identification of *Xanthomonas* species by acrylamide-gel disc electrophoresis of soluble bacterial proteins. (Abstract).

18439

Induction of floral hypersexuality in *Iberis amara* L. (Cruciferae) influenced by 2,4-dichlorophenoxyacetic acid.

18446

Location of unique sequences in tobacco mosaic virus ribonucleic acid.

18457

Amino acid-(phenylazo)-phenyl derivatives. XXIII. investigation of the phytotoxic effect of the antipodes of alanine and phenylalanine-4-(phenylazo)-phenylamides against various plant species.

18472

PLANT BREEDING

Genetics of reaction to *Puccinia sorghi* Schw. in ten corn inbred lines obtained from Africa and Europe.

17937

A second gene for resistance to *Puccinia graminis* f.sp. *tritici* in the Red Egyptian 2D wheat substitution line.

18024

Genetics of reaction to *Puccinia sorghi* in ten corn inbred lines from Africa and Europe.

18076

PLANT BUDDING

Constituents of the cotton bud. XIII. Further studies on a nonpolar feeding stimulant for the boll weevil.

18124

PLANT CONTAMINATION

Comparative Cs-137 content of agricultural crops grown in a contaminated soil.

18389

PLANT CUTTINGS

Induced resistance to bacterial wilt in susceptible tobacco cuttings pretreated with avirulent mutants of *Pseudomonas*. (Abstract).

18029

PLANT DISEASE CONTROL

Stand loss of small grains in Florida.

18057

PLANT DISEASE FORECASTING

The relation of rainfall, relative humidity, and temperature to late blight of potato in Sedes, Sindos-Lahanokipi of Nomos Thessaloniki.

17925

PLANT DISEASE RESISTANCE

Genetics of reaction to *Puccinia sorghi* Schw. in ten corn inbred lines obtained from Africa and Europe.

17937

Quantitative histology of *Melampsora lini* resistance in flax. (Abstract).

17941

Carbohydrate distribution in grafted potato plants representing two types of resistance to virus X.

17948

A mechanism of enhanced resistance to *Ceratocystis ulmi* in American elms treated with sodium trichlorophenylacetate.

17956

Susceptibility of tomato varieties to *Sclerotium rolfsii*.

17968

Effect of soil sterilization and soil type on apparent susceptibility of two muskmelon varieties to *Fusarium oxysporum* f. sp. *melonis*. (Abstract).

17976

Effectiveness of specific genes and gene combinations in conferring resistance to races of *Xanthomonas malvacearum* in Upland cotton. (Abstract).

17978

Seedling resistance to powdery mildew of Purdue 5752C1-7-5-1 wheat derived from *Triticum timopheevi*. (Abstract).

17987

Effect of moderate adult resistance on penetration, hyphal growth rates, and urediospore production by crown rust of oats. (Abstract).

17995

Comparative physiology of *Pinus monticola* Dougl. resistant and susceptible to *Cronartium ribicola* J. C. Fisch. ex. Rabenh.

18000

Genetic variation in susceptibility to fusiform rust in a wild population of loblolly pine. (Abstract).

18010

Relationships among races of *Piricularia oryzae*. (Abstract).

18016

A second gene for resistance to *Puccinia graminis* f.sp. *tritici* in the Red Egyptian 2D wheat substitution line.

18024

Resistance breakdown in maize to maize dwarf mosaic virus after treatment with atrazine. (Abstract).

18027

Induced resistance to bacterial wilt in susceptible tobacco cuttings pretreated with avirulent mutants of *Pseudomonas*. (Abstract).

18029

A study on auxin and chlorogenic acid in leaf-roll resistant and susceptible potato varieties.

18032

SUBJECT INDEX

PLANT HORMONES

- Fungistatic constituents in citrus varieties resistant to the mal-secco disease. **18046**
- Cytokinin effect of benzyladenine: Increase of nucleic acid and protein synthesis in bean leaves. **18048**
- Tolerance to barley yellow dwarf in winter oats. **18050**
- Preliminary studies on *Phyllachora maydis* affecting corn in Central America. (Abstract). **18054**
- Alterations in the auxin levels of resistant and susceptible hosts induced by the curly top virus. **18066**
- Genetics of reaction to *Puccinia sorghi* in ten corn inbred lines from Africa and Europe. **18076**
- The yield of potatoes resistant to *Heterodera rostochiensis* on infested land. **18140**
- PLANT DISEASE TRANSMISSION**
- Ascospore production, discharge and infection by *Glomerella cingulata* causing coffee berry disease. **17999**
- The presence of tristeza virus in certain species of citrus in Cyprus. **18042**
- PLANT DISEASES**
- Method for estimating intensity of the little leaf disease of brinjal (*Solanum melongena*). **17917**
- Selective staining of dead cells in bean leaves injured by ozone. **17931**
- List of Phytopathological terms. **17932**
- Premature death of adult rusted wheat plants in relation to carbon dioxide evolution by root systems. **17964**
- Effect of *Xanthomonas vesicatoria* on loss of electrolytes from leaves of *Capsicum annum*. **17970**
- Chemical control of scab and anthracnose on susceptible varieties of Citrus in Florida. (Abstract). **17981**
- Systemic-chemical paints for the control of *Cytospora* canker disease in prune trees. **17996**
- Interceptions of plant diseases through the port of Bombay. **18014**
- Role of nitrogen in wood deterioration. VI. Mycelial fractions and model nitrogen compounds as substrates for growth of *Polyporus versicolor* and other wood-destroying and wood-inhabiting fungi. **18018**
- Influence of nitrogen nutrition on *Fusarium* root rot of pinto bean and on its suppression by barley straw. **18028**
- Effect of control programs on development of epidemics of Dutch elm disease. (Abstract). **18034**
- Some additions to the species of *Cercospora* from West Pakistan. **18040**
- Reproduction of the coconut lethal yellowing syndrome by mechanical inoculation of young seedlings. **18049**
- A leaf blight of corn (*Zea mays*) incited by *Fusarium moniliforme*. (Abstract). **18053**
- The frequency of penetration of epidermal strips and intact wheat leaves by *Puccinia graminis* f. sp. *tritici*. **18060**
- Pathogenic and cultural variation in *Phytophthora nicotianae* var *parasitica* from greenhouse plants. **18064**
- Cultural and pathogenicity studies of induced variants of bean and pea root rot *Fusarium* species. **18078**
- Physiologic race changes in barley mildew 1964-67. **18130**
- Thread worms in the rhizosphere of the normal cotton and of that infected with the verticillous cotton wilt. **18149**
- Influence of micro-organisms on the distribution in roots of phosphate labelled with phosphorus-32. **18424**
- PLANT DISSEMINATION**
- On the dispersal of the bulbs of *Oxalis cernua* Thunb. by mole-rats (*Spalax ehrenbergi* Nehring). **18163**
- PLANT ECOLOGY**
- Desert grassland mesquite and fire. **17919**
- Thread worms in the rhizosphere of the normal cotton and of that infected with the verticillous cotton wilt. **18149**
- Metabolism of amitrole (3-amino-1,2,4-triazole) in relation to the differential susceptibility of *Cirsium arvense* (L.) scop. ecotypes. **18474**
- PLANT ENZYMES**
- Pectolytic enzyme production by *Phymatotrimum omnivorum*. (Abstract). **18427**
- PLANT EXTRACTS**
- Effect of seed extract of *Trifolium subterraneum* on germination and seedling growth rate. **17920**
- A bioassay technique for screening feeding stimulants for larvae of tobacco budworm. **18096**
- Resistance in bermudagrass to the fall armyworm. **18104**
- Constituents of the cotton bud. XIII. Further studies on a nonpolar feeding stimulant for the boll weevil. **18124**
- The effect of species of *Allium* on soil bacteria in relation to germination of sclerotia of *Sclerotium cepivorum* Berk. **18434**
- Disc electrophoresis of sonic extracts of five phytopathogenic bacteria. (Abstract). **18444**
- Auxin-induced elimination of a protein in bean hypocotyl. **18470**
- PLANT GALLS**
- Effect of temperature and variety on nematode development and gall production on soybeans infected with *Meloidogyne incognita* acrita. (Abstract). **18131**
- PLANT GENETICS**
- Mitotic recombination in conidiophores of *Verticillium albo-atrum*. **17922**
- Genetics of reaction to *Puccinia sorghi* Schw. in ten corn inbred lines obtained from Africa and Europe. **17937**
- Phytoalexin production in corn resistant to *Helminthosporium turcicum*. **18020**
- A second gene for resistance to *Puccinia graminis* f. sp. *tritici* in the Red Egyptian 2D wheat substitution line. **18024**
- Genetics of reaction to *Puccinia sorghi* in ten corn inbred lines from Africa and Europe. **18076**
- Lack of cytoplasmic inheritance of alfalfa resistance to the spotted alfalfa aphid. **18099**
- Chromosomal alternations in pearl millet induced by gammarays. **18465**
- PLANT GRAFTING**
- Successful tissue transplantation of auxin-dependent tumours and some of its problems. **17935**
- Carbohydrate distribution in grafted potato plants representing two types of resistance to virus X. **17948**
- PLANT GROWTH INHIBITORS**
- Effect of seed extract of *Trifolium subterraneum* on germination and seedling growth rate. **17920**
- The influence of plant-growth substances and their inhibitors on the host-parasite relationships of *Aphelenchoides ritzemabosi* in culture. **18155**
- Manganese toxicity in celery. **18413**
- Auxin effects on the activity of pectin-transeliminase in vitro. **18430**
- PLANT HARDINESS**
- Tolerance to barley yellow dwarf in winter oats. **18050**
- Residues of diazinon in carrots after treatment against cyclodiene-resistant carrot rust fly. **18093**
- Lack of cytoplasmic inheritance of alfalfa resistance to the spotted alfalfa aphid. **18099**
- Resistance in bermudagrass to the fall armyworm. **18104**
- Resistance of southern peas to the cowpea curculio. **18125**
- Control of endo- and ecto-parasitic nematodes in turf by hot-water treatments. **18139**
- Insecticide residues in pest control. **18401**
- Survival and growth of *Fomes annosus* at high concentrations of borax. (Abstract). **18450**
- Metabolism of amitrole (3-amino-1,2,4-triazole) in relation to the differential susceptibility of *Cirsium arvense* (L.) scop. ecotypes. **18474**
- PLANT HORMONES**
- Experiments and considerations on the anomalies of tomatoes of the super marmande type in hot houses, connections with the use of some plant hormones. **17933**
- Successful tissue transplantation of auxin-dependent tumours and some of its problems. **17935**
- Auxin and crown gall tumor initiation. (Abstract). **18023**
- A study on auxin and chlorogenic acid in leaf-roll resistant and susceptible potato varieties. **18032**
- Alterations in the auxin levels of resistant and susceptible hosts induced by the curly top virus. **18066**
- Interaction of growth regulators in the senescence of nasturtium leaf disks. **18426**
- Auxin effects on the activity of pectin-transeliminase in vitro. **18430**
- The effect of hormonal herbicides on the radical buds of *Cirsium arvense* scop. **18480**
- Plant hormones-V. Thin-layer and gas-liquid chromatography of the gibberellins; direct identification of the gibberellins in a crude plant extract by gas-liquid chromatography. **18485**

SUBJECT INDEX

PLANT INJURIES

PLANT INJURIES

- Black vine weevil larval damage to concord grape roots at different population densities. 18088
- Cercal leaf miner in the South-east Region. 18092
- Effects of early-, mid-, and late-season infestations of two-spotted spider mites on the yield of cotton 18094
- Oviposition preferences of western corn root-worms for various soil surface conditions. 18100
- Attempts at combatting oystershell scale, *Lepidosaphes ulmi* (L.), on apple trees in orchards of Quebec. 18109
- A medium for laboratory rearing of the peach tree and lesser peach tree borers. 18114
- Resistance of southern peas to the cowpea curculio. 18125
- Injury to *Heterodera tabacum* by high soil temperatures. (Abstract). 18143
- The host-parasite relations and ecology of *Trichodorus viruliferus* on apple roots, as observed from an underground laboratory. 18145
- The relationships between population increase and population density in plant parasitic nematodes. 18148
- Preplanting treatments for weed control in Connecticut shadegrown tobacco. 18157
- Evaluation of weed control treatments in field-grown tobacco. 18158
- Weeds in agronomic crops. Field corn, soybeans. 18159
- Ornamentals. 18164
- Wound-induced gibberellins. 18467

PLANT METABOLISM

- Comparative gibberellin relationships in tall and dwarf peas (*Pisum sativum* L.). 17916
- An arylsulfatase in the wood rotting basidiomycete, *Fomes geotropus*. 18035
- Cytokinin effect of benzyladenine: Increase of nucleic acid and protein synthesis in bean leaves. 18048
- Chemical control of nutsedge (*Cyperus rotundus* L.) and the metabolism of 3,6-dichloro-O-anisic acid (dicamba). 18169
- Auxin effects on the activity of pectin-transeliminase in vitro. 18430
- Effect of defoliant on carbohydrate and nitrogen metabolism in cotton plant leaves. 18448
- A biochemical role for boron. 18456
- Metabolism of amitrole (3-amino-1,2,4-triazole) in relation to the differential susceptibility of *Cirsium arvense* (L.) scop. ecotypes. 18474

PLANT MORPHOLOGY

- Ascospore production, discharge and infection by *Glomerella cingulata* causing coffee berry disease. 17999
- Cytomorphological features of TMV-INFECTED tobacco callus cells in tissue culture. 18063
- Induction of floral hypersexuality in *Iberis amara* L. (Cruciferae) influenced by 2,4-dichlorophenoxyacetic acid. 18446

- Stromatal rind formation in the brown rot fungi. 18477

PLANT MUTATION

- Chromosomal alternations in pearl millet induced by gammarays. 18465

PLANT NEMATODES

- The influence of crop-rotation on the attack of carrots by *Meloidogyne hapla* Chitw. and symptom formation. 18068
- Effects of nematode extraction method, soil mixture, and nematode numbers on the transmission of tobacco ringspot virus by *Xiphinema americanum*. 18070
- The increased attack of *Ditylenchus dipsaci* on onion caused by some fungicides. 18132
- The yield of potatoes resistant to *Heterodera rostochiensis* on infested land. 18140
- Electron microscope studies of some cephalic structures of *Xiphinema americanum*. 18142
- The host-parasite relations and ecology of *Trichodorus viruliferus* on apple roots, as observed from an underground laboratory. 18145
- The effect of amino acid antimetabolites on four nematode species and their host plants. 18146
- The relationships between population increase and population density in plant parasitic nematodes. 18148
- Parasitism of *Tylenchus emarginatus* on conifer seedling roots and some observations on the biology of the nematode. 18150
- Evaluation of some taxonomic indices in the potato rot nematode *Ditylenchus destructor* Thorne, 1945. 18151
- Gamma irradiation of *Heterodera schachtii*. 18152
- Plant-parasitic nematodes in grape and raspberry soils of Ontario and a comparison of extraction techniques. 18153
- The effect of environment on sex determination in *Heterodera rostochiensis*. 18154
- The influence of plant-growth substances and their inhibitors on the host-parasite relationships of *Aphelenchoides ritzemabosi* in culture. 18155

PLANT NUTRITION

- Nutritional requirements of a tomato tissue culture: Growth promoting factors from peas. 18478

PLANT NUTRITIONAL DEFICIENCIES

- Relation of boron to cherry rosette disease in Oregon, and the possible implication of a virus. 17954
- The effect of decomposing organic matter on zinc level in soil and plants. 18061

PLANT PEST CONTROL

- Peculiarities of development and harmful activity of the Hessian fly (*Mayetiola destructor* Say.) under conditions of irrigation. 18119
- Effect of variety and fumigation on nematode populations in oats, wheat, and rye. 18147

PLANT PEST RESISTANCE

- Phytoalexin production in corn resistant to *Helminthosporium turcicum*. 18020

PLANT PHYSIOLOGY

- Comparative gibberellin relationships in tall and dwarf peas (*Pisum sativum* L.). 17916

- Effect of seed extract of *Trifolium subterraneum* on germination and seedling growth rate. 17920

- Development of parthenocarpic and non-parthenocarpic syconia of *Ficus carica* L. cv. King in relation to endogenous and exogenous growth regulators. 17927

- The impact of fungi on man. QK603.0T3. 17934

- Successful tissue transplantation of auxin-dependent tumours and some of its problems. 17935

- Mechanism of increased root rot in virus-infected peas. 17950

- Effect of *Xanthomonas vesicatoria* on loss of electrolytes from leaves of *Capsicum annuum*. 17970

- Effect of *Uromyces phaseoli* on the water relations of primary bean leaves. (Abstract). 17977

- Mycelial growth and production of oospores as affected by beta-sitosterol, and the germination of oospores of *Phytophthora megasperma* var. *sojae*. (Abstract). 17979

- Investigations of the mechanism of the necrotic response of *Nicotiana tabacum* L. var. *Samsun NN* to infection with tobacco mosaic virus. 17985

- Effects of barley stripe mosaic virus infection on the respiration of barley leaves. (Abstract). 17990

- The development of *Albugo candida*-induced 'green islands' on *Brassica juncea* cotyledons. 17992

- The role of cotton and bean seed exudate in pre-emergence infection by *Rhizoctonia solani*. 17994

- Effect of moderate adult resistance on penetration, hyphal growth rates, and urediospore production by crown rust of oats. (Abstract). 17995

- Comparative physiology of *Pinus monticola* Dougl. resistant and susceptible to *Cronartium ribicola* J. C. Fisch. ex. Rabenh. 18000

- Races of *Puccinia polysora* in Nigeria. 18015

- Cytokinin effect of benzyladenine: Increase of nucleic acid and protein synthesis in bean leaves. 18048

- Effect of MCPA on lettuce pre-inoculated with lettuce mosaic virus. 18075

- On light-sensitivity in germinating urediospores of wheat brown rust. 18080

- Systematic insecticide seed treatment tests on soybeans. bowling, c c. 18082

- The Columbian timber beetle, *Corthylus columbianus* (Coleoptera: Scolytidae). VIII. Artifacts and characteristics of the host tree. 18129

- The influence of plant-growth substances and their inhibitors on the host-parasite relationships of *Aphelenchoides ritzemabosi* in culture. 18155

- Ornamentals. 18164

- Manganese toxicity in celery. 18413

- Effects of plant growth regulators and other compounds on flow of latex in *Hevea brasiliensis*. 18421

- Effect of culture filtrates of *Pseudomonas phaseolicola* on the growth of excised roots and callus tissue cultures of bean. (Abstract). 18422

- The selectivity and activity of s-triazine herbicides in banana plants. 18423

SUBJECT INDEX

PLEUROPNEUMONIA

Effect of thiram upon glucose catabolism by *Fusarium oxysporum*. (Abstract).

18425

Interaction of growth regulators in the senescence of nasturtium leaf disks.

18426

Pectolytic enzyme production by *Phymatotrichum omnivorum*. (Abstract).

18427

Germination of *Fomes applanatus* basidiospores. (Abstract).

18429

Effect of anacrobiosis on germination and viability of *Rhizopus stolonifer* sporangiospores. (Abstract).

18431

Auxotrophic mutants of *Phytophthora* species. (Abstract).

18432

Plant growth regulations in *Ditylenchus dipsaci*, *Ditylenchus trifurmis* and host tissues.

18437

Characteristics of a seasonal population of airborne *Fomes fomentarius* basidiospores. (Abstract).

18438

Effect of fungal estrogen F-2 on the production of perithecia by *Fusarium roseum* *Graminearum*. (Abstract).

18442

Extent of *Aspergillus flavus* and *Fusarium oxysporum* germination in soil and in the rhizosphere of peanut. (Abstract).

18445

Electron microscopic studies of the nervous system of *Trichodorus christiei* (Abstract).

18447

Survival and growth of *Fomes annosus* at high concentrations of borax. (Abstract).

18450

Red pine needle structure.

18451

Teliospore germination of *Puccinia recondita* f. sp. *tritici* (Abstract).

18452

Active uptake of *Helminthosporium carbonum* toxin and its effect on CO₂ dark fixation by corn. (Abstract).

18453

Sporulation of *Cephalosporium gregatum* on naturally infested soybean straw. (Abstract).

18455

Electron micrographs of *Rhizopus stolonifer* sporangiospores subjected to chilling. (Abstract).

18458

Oxalate biosynthesis and pathways for glucose catabolism in *Sclerotium rolfsii* Sacc.

18459

Oxalic acid biosynthesis by *Sclerotium rolfsii*. (Abstract).

18460

Temperature effects on *Pleurotus ostreatus* spore production (Abstract).

18461

A physiologic-genetic study of the differential response of navy beans (*Phaseolus vulgaris* L.) to zinc.

18466

Auxin-induced elimination of a protein in bean hypocotyl.

18470

Herbicide composition and method. Patent 3,407,056.

18471

Amino acid-(phenylazo)-phenyl derivatives. xX-III. investigation of the phytotoxic effect of the antipodes of alanine and phenylalanine-4-(phenylazo)-phenylamides against various plant species.

18472

Stomatal movements; a yearly rhythm.

18473

Metabolism of amitrole (3-amino-1,2,4-triazole) in relation to the differential susceptibility of *Cirsium arvense* (L.) scop. ecotypes.

18474

Stromatal rind formation in the brown rot fungi.

18477

Nutritional requirements of a tomato tissue culture: Growth promoting factors from peas.

18478

PLANT PROTECTION

Pesticides in the coming struggle for food.

17936

Abstracts of papers accepted for presentation at the sixtieth annual meeting of The American Phytopathological Society, Columbus, Ohio, 2-6 September 1968.

17938

Evaluation of systemic fungicides and insecticides for the control of cotton boll rot in vitro. (Abstract).

17943

Effect of control programs on development of epidemics of Dutch elm disease. (Abstract).

18034

Insect pests of Nigerian crops.

18105

Improved technique to control shot hole borers and bark beetles.

18106

Attempts at combatting oystershell scale, *Lepidosaphes ulmi* (L.), on apple trees in orchards of Quebec.

18109

Control of mustard aphid (*Lipaphis erysimi* Kalt.) by systemic insecticides.

18115

Attempted cultivation of nematode cells. (Abstract).

18133

The effect of hormonal herbicides on the radical buds of *Cirsium arvense* scop.

18480

PLANT QUARANTINE

Interceptions of plant diseases through the port of Bombay.

18014

PLANT REGULATORS

Development of parthenocarpic and non-parthenocarpic syconia of *Ficus carica* L. cv. King in relation to endogenous and exogenous growth regulators.

17927

Experiments and considerations on the anomalies of tomatoes of the super marmande type in hot houses, connections with the use of some plant hormones.

17933

A mechanism of enhanced resistance to *Ceratocystis ulmi* in American elms treated with sodium trichlorophenylacetate.

17956

Alterations in the auxin levels of resistant and susceptible hosts induced by the curly top virus.

18066

Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. alphanaphthaleneacetic acid.

18397

Effects of plant growth regulators and other compounds on flow of latex in *Hevea brasiliensis*.

18421

Interaction of growth regulators in the senescence of nasturtium leaf disks.

18426

Plant growth regulations in *Ditylenchus dipsaci*, *Ditylenchus trifurmis* and host tissues.

18437

Auxin-induced elimination of a protein in bean hypocotyl.

18470

Herbicide composition and method. Patent 3,407,056.

18471

Nutritional requirements of a tomato tissue culture: Growth promoting factors from peas.

18478

PLANT REPRODUCTION

The effect of carbon source, carbon to nitrogen ratios, and organic amendments on survival of propagules of *Verticillium albo-atrum* in soil.

17921

Induction of floral hypersexuality in *Iberis amara* L. (Cruciferae) influenced by 2,4-dichlorophenoxyacetic acid.

18446

PLANT TEMPERATURE

Desert grassland mesquite and fire.

17919

The summer biology of *Puccinia striiformis* in southeastern Washington. I. Induction of infection during the summer.

18072

PLANT TRANSLOCATION

Permeability changes in pear fruits associated with pathogenesis by *Erwinia amylovora*. (Abstract).

17961

Loss of phorate from a granular formulation applied in the soil.

18110

The selectivity and activity of s-triazine herbicides in banana plants.

18423

Influence of micro-organisms on the distribution in roots of phosphate labelled with phosphorus-32.

18424

Inorganic composition and microscopy of citrus roots grown under several copper and soil amendment conditions.

18428

Active uptake of *Helminthosporium carbonum* toxin and its effect on CO₂ dark fixation by corn. (Abstract).

18453

Metabolism of amitrole (3-amino-1,2,4-triazole) in relation to the differential susceptibility of *Cirsium arvense* (L.) scop. ecotypes.

18474

Effect of 3-indoleacetic acid on phospholipid membrane components of *Avena coleoptiles*.

18481

PLANT WATER RELATIONS

Effects of watering frequency and saturation time on fine root necrosis of peach caused by *Pythium* spp. (Abstract).

17952

Effect of *Uromyces phaseoli* on the water relations of primary bean leaves. (Abstract).

17977

PLANTING

Western corn rootworm egg distribution and adult emergence under two corn tillage systems.

18111

PLANTS

Loss of phorate from a granular formulation applied in the soil.

18110

Insecticide residues in pest control.

18401

Stomatal movements; a yearly rhythm.

18473

PLASMIDIOPHORA BRASSICAE

Isolation and properties of *Plasmidiophora brassicae* plasmodia from infected crucifer tissues and tissue culture callus. (Abstract).

18008

PLATYPODIDAE

Information concerning the African bark and nut beetles fauna (Coleoptera scolytidae and platypodidae).

17762

PLEUROPNEUMONIA

Mycoplasmas: their role in bovine disease.

18264

SUBJECT INDEX

PLEUROTUS OSTREATUS

PLEUROTUS OSTREATUS

Temperature effects on *Pleurotus ostreatus* spore production (Abstract).

18461

PLODIA INTERPUNCTELLA

Chambers for collecting and observing single pupae of three stored-product moths.

17883

PLUMS

Systemic-chemical paints for the control of Cytospora canker disease in prune trees.

17996

PNEUMONIA

Properties of Aujeszky's disease virus strains isolated from swine pneumonia cases.

18215

Corynebacterium equi infection in two foals.

18225

Pneumonia of sheep in Kenya. II. Pathology of chronic progressive pneumonia.

18338

POA

Low light intensity promotes melting out of bluegrass. (Abstract).

18026

POA ANNUA

Transmission of a leafhopper-borne virus from naturally infected *Poa annua* in Czechoslovakia.

18039

POA PRATENSIS

The barley root-knot nematode in Illinois.

18135

PODOSPHAERA LEUCOTRICHIA

Effect of temperature on germination of *Podosphaera leucotrichia* conidia. (Abstract).

18436

POISONING

Treatment for poisoning by slug bait.

18187

Strychnine levels in tissues and stomach contents of poisoned dogs: An eleven year survey.

18254

Swedish studies of game that had been found dead as well as specimens that had been shot.

18411

Toxic blue-green algae in Saskatchewan.

18414

The toxicology of different organo-mercurials used as fungicides.

18418

POISONOUS FUNGI

Phosphorus content during development of *Claviceps purpurea*.

18454

POISONOUS PLANTS

A fern poisoning-like disease observed in an improved pasture.

18261

POLIOMYELITIS

Helminths as vehicles and synergists of microbial infections.

18376

POLLEN

Chromosomal alternations in pearl millet induced by gammarays.

18465

POLLINATION

The foraging behavior of honeybees (*Apis mellifera*) and bumblebees (*Bombus* Spp.) on blackcurrant (*Ribes nigrum*), raspberry (*Rubus idaeus*) and strawberry (*Fragaria x ananassa*) flowers.

17732

POLYETHYLENE

Notes on microanalytical techniques in the analysis of foods for extraneous materials.

17792

Aluminum foil and white polyethylene mulches to repel aphids and control watermelon mosaic.

18083

POLYHEDROSES

Investigations on the *Heliothis* nuclear polyhedrosis virus and its development as a biological control agent.

17779

A study of the nuclear polyhedrosis virus on the beet armyworm, *Spodoptera exigua* (Hubner), with emphasis on stability, pathogenicity and histopathology.

17837

POLYMORPHISM

Electrophoretic variation of proteinase in the digestive juice of the silkworm, *Bombyx mori* L.

17815

POLYPLOIDY

Tetraploid females in the hymenopteron, *Mormoniella*.

17906

The effect of polyploidy on plant virus replication and control.

17991

POLYPORUS VERSICOLOR

Role of nitrogen in wood deterioration. VI. Mycelial fractions and model nitrogen compounds as substrates for growth of *Polyporus versicolor* and other wood-destroying and wood-inhabiting fungi.

18018

POPULATION

Studies on selection in natural and experimental populations of *Drosophila pseudoobscura*.

17781

Alate aphid species captured in yellow pans.

17806

Effect of the chemosterilant metepa on the housefly, *Musca domestica* L.

17848

A red dye to evaluate bait formulations and to mass mark field populations of boll weevils.

17856

Influence of population level and trap spacing on capture of tobacco horn-worm moths in blacklight traps with virgin females.

17861

Endogenous diurnal rhythm of pupation in a mosquito population.

17868

A possible marker for European corn borer moths.

17882

Techniques of marking insects with micronized fluorescent dust with especial emphasis on marking millions of *Lygus hesperus* for dispersal studies.

17886

Studies of the epidemiology of arthropod-borne virus infections at Mitchell River Mission, Cape York Peninsula, north Queensland. II. Arbovirus infections of mosquitoes, man, and domestic fowls, 1963-1966.

17910

Studies of the epidemiology of arthropod-borne virus infections at Mitchell River mission, Cape York Peninsula, north Queensland. I. Mosquito collections, 1963-1966.

17914

Prevalence of *Thielaviopsis basicola* in naturally infested soil after cultivation of various crops for five consecutive years. (Abstract).

17997

Control of the birch leaf minor with disulfoton.

18086

Effects on populations of corn rootworms of aldrin residues in soil four years after application.

18087

Black vine weevil larval damage to concord grape roots at different population densities.

18088

Studies on a biological and a chemical method of controlling the dark rice field mosquito in Louisiana.

18090

Further evaluation of acaricides for brown wheat mite control on winter wheat in Kansas, 1963-65.

18091

Egg distribution as a factor in suppressing the green peach aphid by pruning.

18122

The Columbian timber beetle, *Corthylus columbianus* (Coleoptera: Scolytidae). VIII. Artifacts and characteristics of the host tree.

18129

The relationships between population increase and population density in plant parasitic nematodes.

18148

Horn fly control with coumaphos.

18349

Resistance of cattle to the tick *Boophilus microplus* (Canestrini). II. Stages of the life cycle of the parasite against which resistance is manifest.

18351

Quantitative studies on the kinetics of establishment and expulsion of intestinal nematode populations in susceptible and immune hosts. *Nippostrongylus brasiliensis* in the rat.

18364

POPULATION STATISTICS

The foraging behavior of honeybees (*Apis mellifera*) and bumblebees (*Bombus* Spp.) on blackcurrant (*Ribes nigrum*), raspberry (*Rubus idaeus*) and strawberry (*Fragaria x ananassa*) flowers.

17732

Spider populations in grain sorghums.

17784

The effect of carbon source, carbon to nitrogen ratios, and organic amendments on survival of propagules of *Verticillium albo-atrum* in soil.

17921

Pesticides in the coming struggle for food.

17936

Anthrenus melanocerus as a predator of the green peach aphid on sugar beets and broccoli.

18121

Factors influencing the population fluctuation of *Pratylenchus penetrans* in soil. III. Host plant species.

18156

Organisation of anti-rat campaigns.

18177

Isolation and characterization of three plaque-type clones of the hickman strain of Newcastle disease virus.

18235

Characteristics of a seasonal population of air-borne *Fomes fomentarius* basidiospores. (Abstract).

18438

POPULUS

Chemical treatment of *Hypoxylon* cankers on aspen. (Abstract).

17959

POPULUS ALBA

Occurrence of poplar cankers caused by *Fusarium solani* in Iowa.

17975

POPULUS DELTOIDES

Occurrence of poplar cankers caused by *Fusarium solani* in Iowa.

17975

Susceptibility of weakened cottonwood stems to fungi associated with blackstem.

18055

POPULUS GRANDIDENTATA

Occurrence of poplar cankers caused by *Fusarium solani* in Iowa.

17975

POPULUS TRICHOCARPA

Susceptibility of weakened cottonwood stems to fungi associated with blackstem.

18055

PORTULACA OLERACEA

Herbaceous annual and perennial weeds.

18174

POTASSIUM

Permeability and excitation of insect muscle.

17896

POTASSIUM PHOSPHATE

Reducing spring discharge of *Venturia inaequalis* ascospores by composting overwintering leaves.

17929

SUBJECT INDEX

PSEUDOMONAS AERUGINOSA

- POTATOES**
Carbohydrate distribution in grafted potato plants representing two types of resistance to virus X. 17948
Distribution in Ontario of *Verticillium* strains causing wilt of potatoes. 17963
Potato spindle tuber virus: in situ sensitivity of the infectious agent to ribonuclease. (Abstract). 17974
Effect of variety on the control of potato late blight with fungicides. (Abstract). 18013
A study on auxin and chlorogenic acid in leaf-roll resistant and susceptible potato varieties. 18032
Cross protection between a plant virus and potato psyllid yellows. 18067
The influence of crop-rotation on the attack of carrots by *Meloidogyne hapla* Chitw. and symptom formation. 18068
Isolation and electron microscopy of potato leafroll virus from plants. 18102
The effect of ultra-violet radiation on the invasion, survival and fertility of larvae of *Heterodera rostochiensis*. 18136
The yield of potatoes resistant to *Heterodera rostochiensis* on infested land. 18140
The effect of environment on sex determination in *Heterodera rostochiensis*. 18154
Factors influencing the population fluctuation of *Pratylenchus penetrans* in soil. III. Host plant species. 18156
Wound-induced gibberellins. 18467
- POTENTIOMETRY**
Mechanical and electrical activity in the indirect flight muscles of the honey bee. 17820
- POULARD WHEAT**
A second gene for resistance to *Puccinia graminis* f.sp. *tritici* in the Red Egyptian 2D wheat substitution line. 18024
- POULTRY**
Bacteriological studies of poultry litter fed to livestock. 18203
Some nutritional aspects of dietary magnesium in ruminants and poultry. 18227
Lipids of Venezuelan equine encephalomyelitis virus and their relationship to the lipids of the host. 18256
Serological tests for the detection of antibodies to *Mycoplasma gallisepticum* in chickens and turkeys. 18266
Histopathological aids to the diagnosis of certain poultry diseases. 18284
The role of the epidemiologist in the control and eradication programs of poultry diseases. 18296
An outbreak of Ornithosis in fowls. 18318
Agricultural (livestock) wastes. 18404
- POWDERY MILDEW (WHEAT)**
Seedling resistance to powdery mildew of Purdue 5752Cl-7-5-1 wheat derived from *Triticum timopheevi*. (Abstract). 17987
- PRATYLENCHUS PENETRANS**
Attempted cultivation of nematode cells. (Abstract). 18133
- Plant-parasitic nematodes in grape and raspberry soils of Ontario and a comparison of extraction techniques. 18153
Factors influencing the population fluctuation of *Pratylenchus penetrans* in soil. III. Host plant species. 18156
- PREDACEOUS INSECTS**
Hemiptera associated with pig carrion. 17764
Bionomics, enemies and population dynamics of *Javesella pellucida* (F.) (Hom., Delphacidae). 17875
Anthocoris melanocerus as a predator of the green peach aphid on sugar beets and broccoli. 18121
- PREGNANCY**
Retraction of the claim that host pregnancy affects pupal production by the tsetse fly. 17867
Effects of attenuated hog cholera virus in pregnant swine at various stages of gestation. 18230
- PREVENTIVE MEDICINE**
Improved technique to control shot hole borers and bark beetles. 18106
- PRISTIPHORA ERICHSONII**
Larch sawfly survival in relation to water levels and microtopography in tamarak bogs. 17839
- PRODENIA ORNITHOGALLI**
Sex ratio in pupae of the yellow-striped armyworm. 17789
- PRODROME**
A prodrome of the genus *Orthopodomyia* (Diptera, Culicidae). 17775
- PRODUCTIVITY**
The experimental production of a formalin-killed Japanese encephalitis virus vaccine from porcine kidney cell cultures. 18260
- PROGESTERONE**
Levels of 5 beta-pregnan-3 alpha, 6 alpha-diol-20-one in urine and its relationship to other metabolites of progesterone in urine of the non-pregnant domestic sow. 18189
Comparison of metabolites of progesterone-4-14C in urine from a nonpregnant domestic sow. 18190
Response of beef cows to exogenous progesterone and estradiol at various stages post-partum. 18192
Cystic ovarian disease in dairy cattle: With special reference to its treatment using a combination of Chorionic gonadotrophin and progesterone. 18200
- PROPERTIES**
Isolation and properties of *Plasmodiophora brassicae* plasmodia from infected crucifer tissues and tissue culture callus. (Abstract). 18008
Identification of strains of watermelon mosaic virus by serology and other characteristics. (Abstract). 18037
Biophysical studies of Teschen disease virus (Talfan strain). 18339
Characteristics of a seasonal population of air-borne *Fomes fomentarius* basidiospores. (Abstract). 18438
Isolation, identification, purification, and biological properties of the antibiotic phytoactin. 18489
- PROSOPIS VELUTINA**
Desert grassland mesquite and fire. 17919
- PROSTHOGONIMUS PUTSCHKOWSKII**
On the Metacercaria of *Prosthogonimus putschkowskii* in *Sympetrum decoloratum* (Odonata: insecta) with observations on its development in chicks. 18370
- PROTEIN SYNTHESIS**
Nucleoprotein synthesis during metamorphosis in *Drosophila virilis*. 17872
- PROTEINASES**
Electrophoretic variation of proteinase in the digestive juice of the silkworm, *Bombyx mori* L. 17815
Enzymatic hydrolysis of the encysted parasporal of *Bacillus thuringiensis* by *Bombyx mori* L. proteases. 17852
- PROTEINS**
Effects of juvenile hormone on protein synthesis during the metamorphosis of the polyphemus silkworm. 17788
Accumulation of glycine in the fat body of the silkworm, *Bombyx mori* L. 17803
Results concerning humoral immunity of *Pyrrohocoris apterus* L. and *Galleria mellonella* F. 17842
Some aspects of isoleucine metabolism in the yellow fever mosquito, *Aedes aegypti* (L.). 17891
High-temperature-induced insoluble coat protein in tobacco mosaic virus (TMV)-infected plants. (Abstract). 17993
Protein and enzyme changes in wheat leaves following infection with *Puccinia recondita*. 18005
Cytochrome oxidase and mitochondrial protein in extracts of leaves of *Nicotiana glutinosa* L. Infected with tobacco mosaic virus. 18045
Cytokinin effect of benzyladenine: Increase of nucleic acid and protein synthesis in bean leaves. 18048
Does the agent of scrapie replicate without nucleic acid. 18205
Identification of *Xanthomonas* species by acrylamide-gel disc electrophoresis of soluble bacterial proteins. (Abstract). 18439
Location of unique sequences in tobacco mosaic virus ribonucleic acid. 18457
Auxin-induced elimination of a protein in bean hypocotyl. 18470
- PRUNES**
Dispersal patterns of *Monilinia laxa* spores in peach, prune, apricot, and almond trees during early spring. (Abstract). 18435
- PRUNING**
Egg distribution as a factor in suppressing the green peach aphid by pruning. 18122
- PSEUDOMONADACEAE**
Effect of *Xanthomonas vesicatoria* on loss of electrolytes from leaves of *Capsicum annuum*. 17970
- PSEUDOMONAS**
Induced resistance to bacterial wilt in susceptible tobacco cuttings pretreated with avirulent mutants of *Pseudomonas*. (Abstract). 18029
- PSEUDOMONAS AERUGINOSA**
Results concerning humoral immunity of *Pyrrohocoris apterus* L. and *Galleria mellonella* F. 17842
The experimental use of bull semen contaminated with *Pseudomonas aeruginosa* organisms. 18249

SUBJECT INDEX

PSEUDOMONAS FLUORESCENS

PSEUDOMONAS FLUORESCENS

Histidine decarboxylase in strains of *Escherichia coli* isolated from normal swine and swine with edema disease and enteric disorders.

18307

PSEUDOMONAS GLYCINEA

Multiplication of *Pseudomonas glycinea* in buds of soybean seedlings. (Abstract).

18017

PSEUDOMONAS PHASEOLICOLA

The response of bean to ozone as related to infection by *Pseudomonas phaseolicola*. (Abstract).

18009

Effect of culture filtrates of *Pseudomonas phaseolicola* on the growth of excised roots and callus tissue cultures of bean. (Abstract).

18422

PSEUDOMONAS SOLANACEARUM

Differentiation of races of *Pseudomonas solanacearum* by a hypersensitive reaction of tobacco leaves. (Abstract).

18025

PSEUDOMONAS SYRINGAE

Recent spread and present distribution of fire blight in the world.

18081

PSEUDORABIES

Properties of Ajuszky's disease virus strains isolated from swine pneumonia cases.

18215

An enzootic of pseudorabies in swine in California.

18257

PSILA ROSAE

Residues of diazinon in carrots after treatment against cyclodiene-resistant carrot rust fly.

18093

PSOROPHORA CONFINNIS

Studies on a biological and a chemical method of controlling the dark rice field mosquito in Louisiana.

18090

PSYCHODIDAE

Some observations on compulsory feeding of sandflies (Diptera, Phlebotominae) with the culture of leptomnads.

17778

PSYLLA

Cross protection between a plant virus and potato psyllid yellows.

18067

PTERIDOPHYTA

A fern poisoning-like disease observed in an improved pasture.

18261

PUBLIC HEALTH

Alberta, 255,000 square miles, free of rats.

18175

Insecticide residues in pest control.

18401

PUBLIC HEALTH ADMINISTRATION

Rabies control in public health administration.

18303

PUCCINIA CORONATA

Effect of moderate adult resistance on penetration, hyphal growth rates, and urediospore production by crown rust of oats. (Abstract).

17995

PUCCINIA GRAMINIS

Relation of uredial and urediospore counts to epiphytic development of wheat rusts and the value of the counts in predicting disease. (Abstract).

17962

Stem rust infection and development in artificially inoculated fields of wheat at Hays, Kans., and its effect on yield, 1960 to 1965. (Abstract).

18022

PUCCINIA GRAMINIS TRITICI

Premature death of adult rusted wheat plants in relation to carbon dioxide evolution by root systems.

17964

A second gene for resistance to *Puccinia graminis* f.sp. tritici in the Red Egyptian 2D wheat substitution line.

18024

The frequency of penetration of epidermal strips and intact wheat leaves by *Puccinia graminis* f. sp. tritici.

18060

PUCCINIA POLYSORA

Races of *Puccinia polysora* in Nigeria.

18015

PUCCINIA RECONDITA

Protein and enzyme changes in wheat leaves following infection with *Puccinia recondita*.

18005

On light-sensitivity in germinating uredospores of wheat brown rust.

18080

Teliospore germination of *Puccinia recondita* f. sp. tritici (Abstract).

18452

PUCCINIA SORGHII

Genetics of reaction to *Puccinia sorghi* Schw. in ten corn inbred lines obtained from Africa and Europe.

17937

Races of *Puccinia polysora* in Nigeria.

18015

Ultrastructure of host and parasite in compatible and incompatible interactions of *Zea mays* L. with *Puccinia sorghi* Schw.

18074

Genetics of reaction to *Puccinia sorghi* in ten corn inbred lines from Africa and Europe.

18076

PUCCINIA STRIIFORMIS

The summer biology of *Puccinia striiformis* in southeastern Washington. I. Induction of infection during the summer.

18072

PULLULARIA PULLULANS

The relationships of ozone, *Lophodermium pinastri* and *Pullularia pullulans* to needle blight of Eastern white pine.

17972

PUPAE

On larvae of Hispinae (Coleoptera, Chrysomelidae) of the fauna of the USSR.

17759

A description of the pupa of the pales weevil, *Hyllobius pales*, and a method for identifying its sex.

17773

Sex ratio in pupae of the yellow-striped armyworm.

17789

Laboratory propagation of *Muscidifurax* raptor on face fly pupae.

17794

Retraction of the claim that host pregnancy affects pupal production by the tsetse fly.

17867

Endogenous diurnal rhythm of pupation in a mosquito population.

17868

Role of photoperiod, temperature, and injury in induction and termination of the pupal diapause of *Heliothis zea* (Boddie).

17877

Chambers for collecting and observing single pupae of three stored-product moths.

17883

PUPAL CASES

Larch sawfly survival in relation to water levels and microtopography in tamarak bogs.

17839

Life history of the looper *Phigalia titea* in Virginia.

17889

PURIFICATION

Isolation, identification, purification, and biological properties of the antibiotic phytoactin.

18489

PUROMYCIN

Nucleoprotein synthesis during metamorphosis in *Drosophila virilis*.

17872

PURPURA HEMORRHAGICA

Duck plague.

18263

PYRANTEL TARTRATE

Changes in the efficacy of three anthelmintics during the maturation of a nematode (*Trichinella spiralis*).

18357

PYRENOCHAETA TERRESTRIS

Disease involvement of nonalliate hosts by *Pyrenochaeta terrestris*. (Abstract).

17947

PYRETHRUM

Pyrethrins-piperonyl butoxide applied as a fog in an empty grain bin.

17897

PYRICULARIA ORYZAE

Relationships among races of *Pyricularia oryzae*. (Abstract).

18016

PYRIMETHAMINE

Experimental treatment of subclinical porcine case of *Toxoplasma* with sulfamonomethoxine and pyrimethamine and its influence upon hemagglutinating antibody.

18202

PYRRHALTA LUTEOLA

Biology of the elm leaf beetle in southern Arizona.

17898

Control of the elm leaf beetle in Arizona.

18128

PYRRHOCORIS APTERUS

Results concerning humoral immunity of *Pyrrhocoris apterus* L. and *Galleria mellonella* F.

17842

PYRROLIZIDINE

Pyrolizidine alkaloid poisoning in calves.

18412

PYRVINIUM PAMOATE

Observations on the effects of pyrvinium pamoate on *Strongyloides stercoralis*.

18359

PYTHIUM

Effects of watering frequency and saturation time on fine root necrosis of peach caused by *Pythium* spp. (Abstract).

17952

Patch canker of *Hevea brasiliensis* caused by *Phytophthora palmivora*.

17967

PYTHIUM APHANIDERMATUM

Stand loss of small grains in Florida.

18057

QUANTITATIVE ANALYSIS

Quantitative studies on the kinetics of establishment and expulsion of intestinal nematode populations in susceptible and immune hosts. *Nippostrongylus brasiliensis* in the rat.

18364

QUARANTINE

Proposed federal Formosan termite quarantine safeguards. Buyer, seller.

18378

QUERCUS EMORYI

Desert grassland mesquite and fire.

17919

RABBITS

The development of *Theileria parva* in the salivary glands of the tick, *Rhipicephalus appendiculatus*.

17873

Anaplasma marginale-infectivity in splenectomized and radiated rabbits.

18210

Characterization of bovine viral diarrhea viruses by their interactions with susceptible host cells.

18243

SUBJECT INDEX

REPRODUCTIVE ORGANS

- California-encephalitis-group viruses in Florida rabbits: Report of experimental and sentinel studies. 18265
- Pathology and immunofluorescence studies of bovine mycoplasma mastitis. 18267
- Relationship between infecting dose, muscle parasitism, and antibody response in experimental trichinosis in rabbits. 18329
- Pathological changes of blood depending on sex and age of rabbits experimentally infected with a sheep strain of *Strongyloides papillosus*. 18358
- The blood of rabbits infected with *Strongyloides papillosus* after 20 serial passages through rabbits. 18367
- Parasitic development of *Obeliscoides cuniculi* in rabbits. 18375
- Morphological and physiological aspects of sporogony and oocyst viability in the protozoan parasites *Eimeria tenella* and *Eimeria stiedae* (Coccidia). 18419
- RABIES**
- Rabies control in public health administration. 18303
- Enzootic rabies in rodents in Thailand. 18320
- RABIES VIRUS**
- Further studies on the use of ERA rabies vaccine in domestic animals. 18201
- One-year immunity in dogs vaccinated with high egg-passage rabies virus grown on established dog kidney cell line. 18222
- Electron microscopic studies on the development of vesicular stomatitis virus. 18236
- Immunization of foxes with inactivated virus rabies vaccine. 18315
- Enzootic rabies in rodents in Thailand. 18320
- Influence of statolon-induced interferon on rabies virus infection in mice. 18322
- RADIATION**
- Pesticides and pollution. SB959.0U4. 17863
- The effect of blood-feeding on the longevity of radiation-resistant yellow-fever mosquitoes. 17885
- Estimation of radiation resistance values of microorganisms in food products. 18383
- RADIOACTIVE CONTAMINATION**
- Comparative Cs-137 content of agricultural crops grown in a contaminated soil. 18389
- Seasonal variation in the concentration of caesium-137 in grass and alfalfa. 18487
- RADIOACTIVITY**
- Selective recovery of volatile products from house flies treated with radioactive insecticide chemicals and synergists. 17796
- Accumulation of glycine in the fat body of the silkworm, *Bombyx mori* L. 17803
- Influence of the spectral composition of certain bands of visible and near visible radiation on diapause in the boll weevil. 17833
- Comparison of metabolites of progesterone-4-¹⁴C in urine from a nonpregnant domestic sow. 18190
- Determination of cesium-137 and related sampling problems of dairy cattle feeds, 1962-1967. 18197
- Degradation of cellular ribonucleic acid in Newcastle disease virus infected cells. 18258
- The effect of diet on the utilization of stable and radioactive copper in ruminants. 18334
- Macroinvertebrates. Fresh water. 18402
- RADIOCHEMISTRY**
- Seasonal variation in the concentration of caesium-137 in grass and alfalfa. 18487
- RADIOISOTOPES**
- Food distribution within colonies of the Argentine ant, *Iridomyrmex humilis* (Mayr). 17859
- RADISHES**
- Anaerobic metabolism of *Albugo candida*-infected radish cotyledons. 17953
- RADOPHOLUS SIMILIS**
- Quantitative changes in organic acids in roots and leaves from grapefruit seedlings infected with *Rhizopholus similis*. 18138
- RAINFALL**
- Costelytra zealandica (White) sex attraction. 17845
- Studies of the epidemiology of arthropod-borne virus infections at Mitchell River mission, Cape York Peninsula, north Queensland. I. Mosquito collections, 1963-1966. 17914
- The relation of rainfall, relative humidity, and temperature to late blight of potato in Sedes, Sindos-Lahanokipi of Nomos Thessaloniki. 17925
- Ascospore production, discharge and infection by *Glomerella cingulata* causing coffee berry disease. 17999
- RANGES**
- Desert grassland mesquite and fire. 17919
- RAPHANUS RAPHANISTRUM**
- Growth, development and control of wild radish. 18162
- Herbaceous annual and perennial weeds. 18174
- RASPBERRIES**
- The foraging behavior of honeybees (*Apis mellifera*) and bumblebees (*Bombus* Spp.) on blackcurrant (*Ribes nigrum*), raspberry (*Rubus idaeus*) and strawberry (*Fragaria x ananassa*) flowers. 17732
- Plant-parasitic nematodes in grape and raspberry soils of Ontario and a comparison of extraction techniques. 18153
- RATS**
- Alberta, 255,000 square miles, free of rats. 18175
- Fumigation—an effective method of rat control in Kuttanad in Alleppey district (Kerala). 18176
- Organisation of anti-rat campaigns. 18177
- Prevalence of *Trichinella spiralis* in wild animals on two Illinois swine farms. 18282
- Mineral and endocrine interrelationships in renal calcification. 18292
- Experimental infection of gnotobiotic *Tenebrio molitor* and white rats with *Hymenolepis diminuta* (Cestoda: Cyclophyllidae). 18363
- Quantitative studies on the kinetics of establishment and expulsion of intestinal nematode populations in susceptible and immune hosts. *Nippostrongylus brasiliensis* in the rat. 18364
- Anthelmintic activity of some carbamate derivatives. 18374
- Helminths as vehicles and synergists of microbial infections. 18376
- Isolation and purification of metabolites found in the urine of male rats fed aldrin and dieldrin. 18379
- Effect of ration modifications on aflatoxicosis in the rat. 18382
- Detergents. 18387
- RED CLOVER**
- Root rot as a cause of red clover decline in leys in Finland. 18079
- REDUVIIDAE**
- Some information on *Triatoma spinolai* Porter 1934, with a study of the external genitalia (Hemiptera, Reduviidae). 17853
- REPORTS**
- Some aspects of mating behavior in butterflies. 17864
- Abstracts of papers accepted for presentation at the sixtieth annual meeting of The American Phytopathological Society, Columbus, Ohio, 2-6 September 1968. 17938
- Recent spread and present distribution of fire blight in the world. 18081
- REPRODUCTION**
- Reproductive behavior of the potato tuberworm, *Phthorimaea operculella* (Zeller), (Lepidoptera: Gelechiidae) and the effect of the chemosterilant metepa. 17836
- Some aspects of mating behavior in butterflies. 17864
- Mitotic recombination in conidiophores of *Verticillium albo-atrum*. 17922
- The impact of fungi on man. QK603.0T3. 17934
- Mycelial growth and production of oospores as affected by beta-sitosterol, and the germination of oospores of *Phytophthora megasperma* var. *sojae*. (Abstract). 17979
- The effect of polyploidy on plant virus replication and control. 17991
- Effect of moderate adult resistance on penetration, hyphal growth rates, and urediospore production by crown rust of oats. (Abstract). 17995
- An investigation of the tobacco mosaic virus multiplication process and its effect on the metabolism of the host. 17998
- Ascospore production, discharge and infection by *Glomerella cingulata* causing coffee berry disease. 17999
- Multiplication of *Pseudomonas glycinea* in buds of soybean seedlings. (Abstract). 18017
- The pathogenicity of secondary and tertiary basidiospores of *Cronartium fusiforme*. 18052
- Does the agent of scrapie replicate without nucleic acid. 18205
- Characteristics of a seasonal population of airborne *Fomes fomentarius* basidiospores. (Abstract). 18438
- Temperature effects on *Pleurotus ostreatus* spore production (Abstract). 18461
- REPRODUCTIVE ORGANS**
- Analysis of the development of oviducts and the developmental relations between oviducts and ovaries in *Drosophila virilis*. Part one: Development of oviducts under normal and experimental

SUBJECT INDEX

RESEARCH

- conditions. Part two: Analysis of alterations occurring in oviducts during imaginal life. 17782
- Some information on *Triatoma spinolai* Porter 1934, with a study of the external genitalia (Hemiptera, Reduviidae). 17853
- Seminal vesiculitis syndrome: Lesions in genital organs of young bulls. 18208
- Mycoplasmas: their role in bovine disease. 18264
- ## RESEARCH
- The foraging behavior of honeybees (*Apis mellifera*) and bumblebees (*Bombus* Spp.) on blackcurrant (*Ribes nigrum*), raspberry (*Rubus idaeus*) and strawberry (*Fragaria x ananassa*) flowers. 17732
- An improved incubator for insects for operation above room temperature and relative humidity. 17734
- The multiplication of Middelburgs and I plaque viruses in *Aedes aegypti* mosquitoes. 17735
- Catch of insects at different heights in traps equipped with blacklight lamps. 17736
- Subterranean termite studies in southern Ontario. 17747
- Information concerning the African bark and nut beetles fauna (Coleoptera scolytidae and platypodidae). 17762
- Hemiptera associated with pig carrion. 17764
- Further studies on the effect of bovine diet on face fly development. 17766
- Circadian emergence rhythm of a tropical scolytid, *Xyleborus ferrugineus*. 17767
- A review of recent literature on the host plant range of the genus *Liriomyza* mik (Diptera: Agromyzidae) in the Continental United States and Hawaii, excluding Alaska. 17770
- Investigations on the *Heliothis* nuclear polyhedrosis virus and its development as a biological control agent. 17779
- Studies on selection in natural and experimental populations of *Drosophila pseudoobscura*. 17781
- Spider populations in grain sorghums. 17784
- Photoinhibitory function of the dorsal ocelli in the phototactic reaction of the migratory locust *Locusta migratoria* L. 17786
- Sex ratio in pupae of the yellow-striped armyworm. 17789
- Field studies of sex attraction in the boll weevil. 17790
- Mechanism of locust jumping. 17793
- The infection of *Boophilus microplus* with *Babesia bigemina*. 17795
- Selective recovery of volatile products from house flies treated with radioactive insecticide chemicals and synergists. 17796
- Chemical sterilization of the stable fly *Stomoxys calcitrans* (Linne), with metepa and hempa. 17797
- Temperature relationships of the development of northern corn rootworm eggs. 17802
- Accumulation of glycine in the fat body of the silkworm, *Bombyx mori* L. 17803
- A comparative study of salivary gland chromosome asynapsis in tumorigenic and closely related non-tumorigenic strains of *Drosophila melanogaster*. 17804
- Alate aphid species captured in yellow pans. 17806
- Tests of genetic systems for the study of the effects of dNA in *Drosophila melanogaster*. 17811
- Studies on the morphology and biology of *Lecanium fletcheri* Ckll. (Homoptera, Coccoidea) and related species. 17813
- Influence of repellency on the efficacy of blatticides. IV. Comparison of four cockroach species. 17814
- Preliminary evaluation of a granulosis virus for control of the codling moth. 17822
- Spread of the boll weevil by drainage water and air currents. 17824
- A sex pheromone from the citrus mealybug. 17828
- Field tests of chemicals for control of the European corn borer. 17831
- Field and laboratory studies on the ecology and morphology of *Nabis americanoferus* Carayon and its parasites in California. 17834
- A study of the nuclear polyhedrosis virus on the beet armyworm, *Spodoptera exigua* (Hubner), with emphasis on stability, pathogenicity and histopathology. 17837
- Parthenogenesis in gum emperor moth *Antheraea eucalypti* (Scott). 17840
- Medium and techniques for mass rearing the red-banded leaf roller. 17843
- Costelytra zealandica* (White) sex attraction. 17845
- Effects of mold inhibitors in larval diet on the biology of the cabbage looper. 17847
- Effect of the chemosterilant metepa on the housefly, *Musca domestica* L. 17848
- The influence of temperature and humidity on the development of *Tenebrio molitor* L. 17850
- A red dye to evaluate bait formulations and to mass mark field populations of boll weevils. 17856
- Pre-imaginal conditioning in *Drosophila*. 17858
- Food distribution within colonies of the Argentine ant, *Iridomyrmex humilis* (Mayr). 17859
- Interception of apple maggot adults on colored traps in an orchard. 17860
- Influence of population level and trap spacing on capture of tobacco horn-worm moths in blacklight traps with virgin females. 17861
- Sub-units of acid phosphatase-I in *Drosophila melanogaster*: Reversible dissociation in vitro. 17862
- Some aspects of mating behavior in butterflies. 17864
- Endogenous diurnal rhythm of pupation in a mosquito population. 17868
- The development of *Theileria parva* in the salivary glands of the tick, *Rhipicephalus appendiculatus*. 17873
- Chambers for collecting and observing single pupae of three stored-product moths. 17883
- The effect of blood-feeding on the longevity of radiation-resistant yellow-fever mosquitoes. 17885
- Techniques of marking insects with micronized fluorescent dust with especial emphasis on marking millions of *Lygus hesperus* for dispersal studies. 17886
- Rearing stored product insects for laboratory studies: Six species of moths. 17887
- Biology of the elm leaf beetle in southern Arizona. 17898
- Winter oviposition by the alfalfa weevil in Virginia. 17900
- Mitotic chromosomes of *Glossina pallidipes* Austen. 17905
- Tetraploid females in the hymenopteron, *Mormoniella*. 17906
- Meiotic drive and visible polarity in *Drosophila* spermatocytes. 17909
- Studies of the epidemiology of arthropod-borne virus infections at Mitchell River Mission, Cape York Peninsula, north Queensland. II. Arbovirus infections of mosquitoes, man, and domestic fowls, 1963-1966. 17910
- Studies of the epidemiology of arthropod-borne virus infections at Mitchell River mission, Cape York Peninsula, north Queensland. I. Mosquito collections, 1963-1966. 17914
- Method for estimating intensity of the little leaf disease of brinjal (*Solanum melongena*). 17917
- Mitotic recombination in conidiophores of *Verticillium albo-atrum*. 17922
- Commonwealth Institute of biological control-Indian Station. 17923
- Race buildup of *Xanthomonas malvacearum* on cotton in southeast Missouri. 17928
- Reducing spring discharge of *Venturia inaequalis* ascospores by composting overwintering leaves. 17929
- Two new hardwood hosts of *Fomes annosus*. 17930
- Selective staining of dead cells in bean leaves injured by ozone. 17931
- Experiments and considerations on the anomalies of tomatoes of the super marmande type in hot houses, connections with the use of some plant hormones. 17933
- Successful tissue transplantation of auxin-dependent tumours and some of its problems. 17935
- Anatomic effects of cadang-cadang disease on coconuts. 17940
- Studies on the chemical control of rice blast caused by *Piricularia oryzae* Cav. 17942
- Investigations of the mechanism of the necrotic response of *Nicotiana tabacum* L. var. Samsun NN to infection with tobacco mosaic virus. 17985
- The role of cotton and bean seed exudate in pre-emergence infection by *Rhizoctonia solani*. 17994
- An investigation of the tobacco mosaic virus multiplication process and its effect on the metabolism of the host. 17998

SUBJECT INDEX

RESEARCH

- Ascopore production, discharge and infection by *Glomerella cingulata* causing coffee berry disease. 17999
- Exocortis in Ortanique orange. 18001
- Tobacco necrosis virus and its satellite virus. 18007
- Studies on the effects of Hg(II) and sucrose on the mechanical transmission of tobacco mosaic virus ribonucleic acid to pinto bean (*Phaseolus vulgaris* L.). 18011
- A study on auxin and chlorogenic acid in leaf-roll resistant and susceptible potato varieties. 18032
- Tomato bushy stunt virus on tomato crops in Argentina. 18047
- Chemical control of corn head smut. 18062
- Additional information on the pathogenicity of *Scleroderris lagerbergii*. 18065
- Bacterial canker of tomato; inoculum level needed for infection. 18071
- Effect of MCPA on lettuce pre-inoculated with lettuce mosaic virus. 18075
- Recent spread and present distribution of fire blight in the world. 18081
- Further evaluation of acaricides for brown wheat mite control on winter wheat in Kansas, 1963-65. 18091
- Cereal leaf miner in the South-east Region. 18092
- Tests with insecticides for the control of resistant *Myzus persicae* (Sulzer) on year-round chrysanthemums. 18095
- A bioassay technique for screening feeding stimulants for larvae of tobacco budworm. 18096
- Survival of *Rhopalosiphum padi* in stored grain during cold weather. 18097
- Lack of cytoplasmic inheritance of alfalfa resistance to the spotted alfalfa aphid. 18099
- Oviposition preferences of western corn rootworms for various soil surface conditions. 18100
- Studies of the insect complex affecting seed production of ponderosa pine in California. 18101
- Reinfestation of forest sites by the Texas leaf-cutting ant. 18107
- Occurrence of fiber containing fluorescent spots associated with *Aspergillus flavus* boll rot in the U. S. cotton crop of 1967. 18108
- Loss of phorate from a granular formulation applied in the soil. 18110
- The tolerance of imported commodities to fumigation with methyl bromide. 18112
- Attack of the black turpentine beetle on roots of slash pines. 18118
- Role of host plant in production of winged forms by a green strain of pea aphid *Acyrtosiphon pisum*. 18120
- Egg distribution as a factor in suppressing the green peach aphid by pruning. 18122
- Constituents of the cotton bud. XIII. Further studies on a nonpolar feeding stimulant for the boll weevil. 18124
- The Colombian timber beetle, *Corthylus columbianus* (Coleoptera: Scolytidae). VIII. Artifacts and characteristics of the host tree. 18129
- Physiologic race changes in barley mildew 1964-67. 18130
- Studies of the suitability of certain *Heliothis* spp. as a host for *Cardiophiles nigriceps* Vierrick. 18141
- The growth, development and control of common ragweed. 18160
- Light quality effects on growth and development ragweed. 18161
- Aquatic weeds. 18170
- Organisation of anti-rat campaigns. 18177
- Distribution of mercury compounds in fish and birds. 18180
- Effects of urease inhibitors on sheep fed diets containing urea. 18182
- Oligosaccharidases from *Macracanthorhynchus hirudinaceus* (Acanthocephala) from swine. 18186
- Treatment for poisoning by slug bait. 18187
- Response of beef cows to exogenous progesterone and estradiol at various stages postpartum. 18192
- Effect of organo-Phosphorus insecticides on the warm blooded animals and cure thereof. 18193
- Avirulent mutant of a strain of ornithosis agent obtained by gamma irradiation. 18195
- Further studies on the use of ERA rabies vaccine in domestic animals. 18201
- Bacteriological studies of poultry litter fed to livestock. 18203
- Experimental colibacillosis and the development of carries in laying hens. 18206
- Microflora associated with agalactia syndrome of sows. 18207
- Properties of Aujeszky's disease virus strains isolated from swine pneumonia cases. 18215
- Some nutritional aspects of dietary magnesium in ruminants and poultry. 18227
- Clinical aspects of toxic infections by anaerobic germ spores in ruminants. 18229
- Hog cholera: Replication of hog cholera virus in tissue culture with cytopathic effect. 18231
- Hog cholera: Safety and protection studies with photodynamically inactivated hog cholera virus. 18232
- Characterization studies on feline panleucopenia virus. (with). II. Pathogenesis in the host. 18233
- Isolation and characterization of three plaque-type clones of the hickman strain of Newcastle disease virus. 18235
- Behavior of equine infectious anemia virus in cell culture and development of a diagnostic test for the disease. 18240
- Newcastle disease: A legal interpretation. 18245
- Artificially induced immunity to enzootic abortion in ewes. 18246
- A case of porcine endocarditis associated with *Staphylococcus aureus*. 18248
- The response of various tissues in neonate calves to bovine papilloma virus (BPV). 18251
- Clostridium perfringens* type A infection of ligated intestinal loops in lambs. 18255
- Degradation of cellular ribonucleic acid in Newcastle disease virus infected cells. 18258
- California-encephalitis-group viruses in Florida rabbits: Report of experimental and sentinel studies. 18265
- Increased incidence of avian leukosis in response to excess vitamin A. 18280
- The utilization of vitamin A and carotene by ruminants. 1. Vitamin A potency of carotenes in corn silage fed to lambs. 2. The effect of time and route of administration of vitamin A on liver vitamin A storage by steers. 3. The effect of route of administration of vitamin A on blood serum and liver vitamin A concentrations in steers at subsequent time intervals. 18281
- Histidine decarboxylase in strains of *Escherichia coli* isolated from normal swine and swine with edema disease and enteric disorders. 18307
- Experimental transmission of two canine neoplasms: Lymphosarcoma and mast cell leukemia. 18310
- Effect of bursectomy on the rous virus tumour induction in chickens. 18311
- Successful treatment of coccidiosis in lambs. 18313
- Immunization of foxes with inactivated virus rabies vaccine. 18315
- Serologic survey for toxoplasma antibodies in a colony of research dogs and cats in California. 18323
- Eight feline viruses: An electron microscopic study. 18324
- Some studies on the pathogenesis and epizootiology of epizootic hemorrhagic disease of deer. 18340
- Northern fowl mite control on mature turkeys on range. 18350
- Quantitative studies on the kinetics of establishment and expulsion of intestinal nematode populations in susceptible and immune hosts. *Nippostrongylus brasiliensis* in the rat. 18364
- Isolation and purification of metabolites found in the urine of male rats fed aldrin and dieldrin. 18379
- On the development of *Cysticercus fasciolaris* in albino rat liver and its reaction on the host tissue. 18381
- Residues of diazinon, coumaphos, ciadrin, methoxychlor, and rotenone in cow's milk from treatments similar to those used for ectoparasite and fly control on dairy cattle, with notes on safety of diazinon and ciadrin to calves. 18403
- Analytical problems: Mercury in the general environment. 18408
- The toxicity and distribution of mercury. 18410
- Swedish studies of game that had been found dead as well as specimens that had been shot. 18411
- Isolation of a new toxin from cultures of *Aspergillus flavus*. 18416

SUBJECT INDEX

RESERVOIRS

Interaction of growth regulators in the senescence of nasturtium leaf disks. 18426

Laboratory tests of fungicides against *Peronospora parasitica* (Pers. ex. Fr.) Fr. 18433

Electron microscopic studies of the nervous system of *Trichodorus christiei* (Abstract). 18447

Light stimulated biosynthesis of gibberellins in *Fusarium moniliforme*. 18462

A physiologic-genetic study of the differential response of navy beans (*Phaseolus vulgaris* L.) to zinc. 18466

Studies on the fungitoxicity of captan. VI. Decomposition of 35S-labelled captan by *Neurospora crassa* conidia. 18469

Auxin-induced elimination of a protein in bean hypocotyl. 18470

Engineering and biological aspects of designing and using a selective flame weeder. 18493

RESERVOIRS

Culicoides control in the Canal Zone by water management. 17912

RESPIRATION

Effects of barley stripe mosaic virus infection on the respiration of barley leaves. (Abstract). 17990

Corynebacterium equi infection in two foals. 18225

Histopathological aids to the diagnosis of certain poultry diseases. 18284

The study of the effect of amitrol on the respiration and activity of some enzymes in poppy plants (*Papaver somniferum* L.). 18479

RESPIRATORY DISEASES

The equine respiratory disease syndrome in the Pacific Northwest. 18272

RESPIRATORY SYSTEM

The significance of the stay of *Necator americanus* larvae in the puppy lung on their further development. 18283

RETINA

An enzootic of pseudorabies in swine in California. 18257

RETINOIC ACID

Influence of dietary vitamin A on cholesterol metabolism of chickens. 18185

RHAGOLETIS POMONELLA

Interception of apple maggot adults on colored traps in an orchard. 17860

RHIPCIPHALUS APPENDICULATUS

The development of *Theileria parva* in the salivary glands of the tick, *Rhipicephalus appendiculatus*. 17873

RHIZOBIUM

Potential of the *Rhizobium-Fusarium* interactions on the incidence of alfalfa root rot. 18006

RHIZOCTONIA LEGUMINICOLA

Studies on the pathogen and vector of dutch elm disease. A. Morphogenesis in *Ceratocystis ulmi*. B. Chemicals stimulating feeding by *Scolytus multistriatus*. II. An improved method for the isolation of a toxic metabolite from *Rhizoctonia leguminicola*. 18051

RHIZOCTONIA SOLANI

The role of cotton and bean seed exudate in pre-emergence infection by *Rhizoctonia solani*. 17994

The interrelationships of *Rhizoctonia solani* and *Helminthosporium vagans*, nitrogen, and variety on alkaloids in *Festuca arundinacea*. (Abstract). 18443

RHIZOPUS STOLONIFER

Effect of anaerobiosis on germination and viability of *Rhizopus stolonifer* sporangiospores. (Abstract). 18431

Electron micrographs of *Rhizopus stolonifer* sporangiospores subjected to chilling. (Abstract). 18458

RHIZOSPHERE

Thread worms in the rhizosphere of the normal cotton and of that infected with the verticillous cotton wilt. 18149

Extent of *Aspergillus flavus* and *Fusarium oxysporum* germination in soil and in the rhizosphere of peanut. (Abstract). 18445

RHOPALOSIPHUM MAIDIS

Aphid vectors of barley yellow dwarf virus in blacklight traps in eastern United States. 18089

RHOPALOSIPHUM PADI

Aphid vectors of barley yellow dwarf virus in blacklight traps in eastern United States. 18089

Survival of *Rhopalosiphum padi* in stored grain during cold weather. 18097

RHUBARB

Vegetable crops. IV. Beans, sweet corn, tomatoes, rhubarb. 18173

RIBES NIGRUM

The foraging behavior of honeybees (*Apis mellifera*) and bumblebees (*Bombus* Spp.) on blackcurrant (*Ribes nigrum*), raspberry (*Rubus idaeus*) and strawberry (*Fragaria x ananassa*) flowers. 17732

RIBONUCLEIC ACID

Nucleoprotein synthesis during metamorphosis in *Drosophila virilis*. 17872

Potato spindle tuber virus: in situ sensitivity of the infectious agent to ribonuclease. (Abstract). 17974

Studies on the effects of Hg(II) and sucrose on the mechanical transmission of tobacco mosaic virus ribonucleic acid to pinto bean (*Phaseolus vulgaris* L.). 18011

Characterization of bovine viral diarrhea viruses by their interactions with susceptible host cells. 18243

Degradation of cellular ribonucleic acid in Newcastle disease virus infected cells. 18258

Biochemical and biophysical properties of canine distemper virus. 18306

Changes in protein and nucleic acid metabolism in baby hamster kidney cells infected with foot-and-mouth disease virus. 18308

Ionizing irradiation of foot-and-mouth disease virus and its ribonucleic acid. 18309

Morphological and physiological aspects of sporogony and oocyst viability in the protozoan parasites *Eimeria tenella* and *Eimeria stiedae* (Coccidia). 18419

Interaction of growth regulators in the senescence of nasturtium leaf disks. 18426

Comparison of the effects of gibberellic acid and aflatoxin in germinating seeds. 18449

Location of unique sequences in tobacco mosaic virus ribonucleic acid. 18457

Wound-induced gibberellins. 18467

RICE

Studies on the chemical control of rice blast caused by *Piricularia oryzae* Cav. 17942

Relationships among races of *Piricularia oryzae*. (Abstract). 18016

Studies on a biological and a chemical method of controlling the dark rice field mosquito in Louisiana. 18090

Studies on hydrogen phosphide against the red flour beetle in a column of paddy. 18113

Fumigation-an effective method of rat control in Kuttanad in Alleppey district (Kerala). 18176

RING SPOT (TOBACCO)

Effects of nematode extraction method, soil mixture, and nematode numbers on the transmission of tobacco ringspot virus by *Xiphinema americanum*. 18070

RINGWORM

An outbreak of ringworm among cattle in Shimane. 18252

RODENTICIDES

Organisation of anti-rat campaigns. 18177

RODENTS

On Diptera in small mammal burrows in northern Europe and southern Spain. 17750

On the distribution of *Ixodes angustus* Neum. (Ixodidae). 17768

On the dispersal of the bulbs of *Oxalis cernua* Thunb. by mole-rats (*Spalax ehrenbergi* Nehring). 18163

Enzootic rabies in rodents in Thailand. 18320

ROOT ROT (ALFALFA)

Potential of the *Rhizobium-Fusarium* interactions on the incidence of alfalfa root rot. 18006

ROOT ROT (BEANS)

Effect of rutin and its degradation products on *Fusarium* root rot of bean. (Abstract). 18019

Influence of nitrogen nutrition on *Fusarium* root rot of pinto bean and on its suppression by barley straw. 18028

Cultural and pathogenicity studies of induced variants of bean and pea root rot *Fusarium* species. 18078

ROOT ROT (PEAS)

Mechanism of increased root rot in virus-infected peas. 17950

Number of zoospores of *Aphanomyces euteiches* required for infection on peas. (Abstract). 17951

Influence of nitrogen form on the incidence and severity of *Aphanomyces* root rot of peas. (Abstract). 17966

Cultural and pathogenicity studies of induced variants of bean and pea root rot *Fusarium* species. 18078

ROOT ROT (RED CLOVER)

Root rot as a cause of red clover decline in leys in Finland. 18079

ROOTS

The biology and ecology of *Fusarium oxysporum* f. *melonis* in soil and the root zones of host and nonhost plants. 17944

SUBJECT INDEX

SAMPLING (STATISTICS)

- Mechanism of increased root rot in virus-infected peas. 17950
- Effects of watering frequency and saturation time on fine root necrosis of peach caused by *Pythium* spp. (Abstract). 17952
- Premature death of adult rusted wheat plants in relation to carbon dioxide evolution by root systems. 17964
- Exocortis in Ortanique orange. 18001
- A *Phytophthora* from subterranean clover roots that attacks soybean and other legumes. (Abstract). 18004
- The influence of crop-rotation on the attack of carrots by *Meloidogyne hapla* Chitw. and symptom formation. 18068
- Black vine weevil larval damage to concord grape roots at different population densities. 18088
- The use of menazon seed dressing to decrease spread of virus yellows in sugar-beet root crops. 18098
- Attack of the black turpentine beetle on roots of slash pines. 18118
- Quantitative changes in organic acids in roots and leaves from grapefruit seedlings infected with *Rhizopholus similis*. 18138
- The influence of an organic soil amendment on infectivity and reproduction of *Tylenchulus semipenetrans* on two citrus rootstocks. 18144
- The host-parasite relations and ecology of *Trichodorus viruliferus* on apple roots, as observed from an underground laboratory. 18145
- Parasitism of *Tylenchus emarginatus* on conifer seedling roots and some observations on the biology of the nematode. 18150
- Factors influencing the population fluctuation of *Pratylenchus penetrans* in soil. III. Host plant species. 18156
- Effect of culture filtrates of *Pseudomonas phaseolicola* on the growth of excised roots and callus tissue cultures of bean. (Abstract). 18422
- Influence of micro-organisms on the distribution in roots of phosphate labelled with phosphorus-32. 18424
- Inorganic composition and microscopy of citrus roots grown under several copper and soil amendment conditions. 18428
- Effect of calcium availability on alfalfa grown in calcareous high sodium soils. 18464
- ROSETTE (CHERRIES)**
Relation of boron to cherry rosette disease in Oregon, and the possible implication of a virus. 17954
- ROT (TOMATOES)**
Susceptibility of tomato varieties to *Sclerotium rolfsii*. 17968
- ROTENONE**
Residues of diazinon, coumaphos, ciadrin, methoxychlor, and rotenone in cow's milk from treatments similar to those used for ectoparasite and fly control on dairy cattle, with notes on safety of diazinon and ciadrin to calves. 18403
- On the principal way of attack of rotenone in fish. 18415
- A review of drug toxicity in the cat. 18420
- ROTYLENCHULUS RENIFORMIS**
Evaluation of nematocides for controlling reniform nematodes on sweetpotatoes. 17918
- ROUS SARCOMA**
Effect of bursectomy on the rous virus tumour induction in chickens. 18311
- ROUS SARCOMA VIRUS**
Effect of bursectomy on the rous virus tumour induction in chickens. 18311
- RUMEN**
Influence of nitrite and hydroxylamine on performance and vitamin A and carotene metabolism of ruminants. 18183
- Oxalate metabolism in sheep and its effect on the anion-cation balance. 18188
- RUMINANTS**
Influence of nitrite and hydroxylamine on performance and vitamin A and carotene metabolism of ruminants. 18183
- Some physiological responses of ruminants to 2,2-dichlorovinyl dimethyl phosphate. 18219
- Some nutritional aspects of dietary magnesium in ruminants and poultry. 18227
- Clinical aspects of toxic infections by anaerobic germ spores in ruminants. 18229
- The utilization of vitamin A and carotene by ruminants. 1. Vitamin A potency of carotenes in corn silage fed to lambs. 2. The effect of time and route of administration of vitamin A on liver vitamin A storage by steers. 3. The effect of route of administration of vitamin A on blood serum and liver vitamin A concentrations in steers at subsequent time intervals. 18281
- The effect of diet on the utilization of stable and radioactive copper in ruminants. 18334
- RUST (CORN)**
Races of *Puccinia polysora* in Nigeria. 18015
- RUST (FLAX)**
Quantitative histology of *Melampsora lini* resistance in flax. (Abstract). 17941
- RUST (PINUS TAEDA)**
Genetic variation in susceptibility to fusiform rust in a wild population of loblolly pine. (Abstract). 18010
- RUST (WHEAT)**
Relation of uredial and urediospore counts to epiphytotic development of wheat rusts and the value of the counts in predicting disease. (Abstract). 17962
- Premature death of adult rusted wheat plants in relation to carbon dioxide evolution by root systems. 17964
- Protein and enzyme changes in wheat leaves following infection with *Puccinia recondita*. 18005
- RUTIN**
Effect of rutin and its degradation products on *Fusarium* root rot of bean. (Abstract). 18019
- RYE**
Stand loss of small grains in Florida. 18057
- Effect of variety and fumigation on nematode populations in oats, wheat, and rye. 18147
- S-TRIAZINE**
The selectivity and activity of s-triazine herbicides in banana plants. 18423
- SAINTPAULIA**
Pathogenic and cultural variation in *Phytophthora nicotianae* var *parasitica* from greenhouse plants. 18064
- SALINE WATER**
Survival of the balsam woolly aphid on *Abies* logs. 18084
- Effects on groundwater. Municipal sources. 18390
- SALIVARY GLANDS (INSECTS)**
A comparative study of salivary gland chromosome asynapsis in tumorigenic and closely related non-tumorigenic strains of *Drosophila melanogaster*. 17804
- Ordered chromosomal DNA synthesis in *Drosophila melanogaster*. 17835
- Nucleoprotein synthesis during metamorphosis in *Drosophila virilis*. 17872
- The development of *Theileria parva* in the salivary glands of the tick, *Rhipicephalus appendiculatus*. 17873
- SALIX**
A new genus and two new species of mirid bugs (Heteroptera, Miridae) from the eastern regions of the USSR. 17755
- SALMONELLA**
A survey to determine the salmonella contamination rate in livestock and poultry feeds. 18204
- Salmonella typhimurium* infection in Minnesota swine. 18209
- Survival of salmonella, viable bacterial count and appearance of contamination-indicating organisms in *Salmonella*-positive feedstuff. 18253
- Sources of salmonellas in market swine. 18342
- SALMONELLA DUBLIN**
Salmonella dublin meningitis in piglets. 18287
- SALMONELLA TYPHIMURIUM**
Antibody response to immunization in experimental Salmonellosis. 18269
- Age susceptibility and excretion of *Salmonella typhimurium* in calves. 18312
- The penetration patterns of *Salmonella typhimurium* through the outer structures of chicken eggs. 18341
- Acute infectious bovine rhinotracheitis and salmonellosis in a dairy herd. 18344
- SALMONELLOSIS**
A survey to determine the salmonella contamination rate in livestock and poultry feeds. 18204
- Antibody response to immunization in experimental Salmonellosis. 18269
- Age susceptibility and excretion of *Salmonella typhimurium* in calves. 18312
- What veterinarians can do about the salmonella problem. 18321
- SAMPLING (STATISTICS)**
Notes on microanalytical techniques in the analysis of foods for extraneous materials. 17792
- Method for estimating intensity of the little leaf disease of brinjal (*Solanum melongena*). 17917
- Evaluation of nematocides for controlling reniform nematodes on sweetpotatoes. 17918

SUBJECT INDEX

SANNINOIDEA EXITIOSA

- Race buildup of *Xanthomonas malvacearum* on cotton in southeast Missouri. 17928
- Physiologic race changes in barley mildew 1964-67. 18130
- Determination of cesium-137 and related sampling problems of dairy cattle feeds, 1962-1967. 18197

SANNINOIDEA EXITIOSA

- A medium for laboratory rearing of the peach tree and lesser peach tree borers. 18114

SARCOPHAGA BULLATA

- Tyrosine metabolism and its hormonal control after eclosion in the adult fleshfly *Sarcophaga bullata* Parker (Diptera: Sarcophagidae). 17879

SARCOPHAGIDAE

- Tyrosine metabolism and its hormonal control after eclosion in the adult fleshfly *Sarcophaga bullata* Parker (Diptera: Sarcophagidae). 17879

SCAB (APPLES)

- Studies of the resistance of local apple varieties to scab (*Venturia inaequalis* (cke.) Wint.) under climatic conditions of Central Anatolia. 18073

SCAB (CITRUS)

- Chemical control of scab and anthracnose on susceptible varieties of Citrus in Florida. (Abstract). 17981

SCAB (PECANS)

- New fungicides effective for pecan scab control in Georgia. 18077

SCARABAEIDAE

- Biological and ecological studies on *Caloglyphus mite* (Acarina: Acaridae) associated with Scarabaeidae. 17743

SCARLET RUNNER BEANS

- Plant hormones-V. Thin-layer and gas-liquid chromatography of the gibberellins; direct identification of the gibberellins in a crude plant extract by gas-liquid chromatography. 18485

SCENT GLANDS

- Pre-imaginal conditioning in *Drosophila*. 17858

SCHISTOCERCA GREGARIA

- Activation of malathion by the locust bodywall. 17777

SCHIZAPHIS GRAMINUM

- Aphid vectors of barley yellow dwarf virus in blacklight traps in eastern United States. 18089

SCLERODERRIS LAGERBERGII

- Additional information on the pathogenicity of *Scleroderris lagerbergii*. 18065

SCLEROTINIA FRUCTICOLA

- Stromatal rind formation in the brown rot fungi. 18477

SCLEROTINIA FRUCTIGENA

- Pectin methyl-trans-eliminase as the maceration factor of *Sclerotinia fructigena* and its significance in brown rot of apple. 17965

SCLEROTIUM CEPIVORUM

- The effect of species of *Allium* on soil bacteria in relation to germination of sclerotia of *Sclerotium cepivorum* Berk. 18434

SCLEROTIUM ROLFSSII

- Susceptibility of tomato varieties to *Sclerotium rolfssii*. 17968
- Stimulation of *Sclerotium rolfssii* and its antagonists by volatile components of alfalfa hay. (Abstract). 18021
- Oxalate biosynthesis and pathways for glucose catabolism in *Sclerotium rolfssii* Sacc. 18459

- Oxalic acid biosynthesis by *Sclerotium rolfssii*. (Abstract). 18460

SCOLYTIDAE

- Information concerning the African bark and nut beetles fauna (Coleoptera scolytidae and platypodidae). 17762
- Improved technique to control shot hole borers and bark beetles. 18106

SCOLYTUS MULTISTRIATUS

- Studies on the pathogen and vector of dutch elm disease. A. Morphogenesis in *Ceratocystis ulmi*. B. Chemicals stimulating feeding by *Scolytus multistriatus*. II. An improved method for the isolation of a toxic metabolite from *Rhizoctonia leguminicola*. 18051

SCOLYTUS RUGULOSUS

- Improved technique to control shot hole borers and bark beetles. 18106

SCRAPIE

- Does the agent of scrapie replicate without nucleic acid. 18205

SCUTIGERELLA IMMACULATA

- Biological and ecological relationships of the fungus, *Entomophthora coronata* (Costantin) Kevorkian and the garden symphylan, *Scutigera immaculata* (Newport). 18012

SECRETION

- Electrophoretic variation of proteinase in the digestive juice of the silkworm, *Bombyx mori* L. 17815

- Defense mechanisms of arthropods. XXI. Formic acid and n-nonyl acetate in the defensive spray of two species of Heliomorphoidea. 17816

- Data on the endocrine system of several Diplopoda, Oniscomorphes (Myriapoda). 17841

SEDIMENTATION

- Myoglobin in control and dystrophic chickens. 18250

SEED DISSEMINATION

- Dispersal patterns of *Monilinia laxa* spores in peach, prune, apricot, and almond trees during early spring. (Abstract). 18435

SEED GERMINATION

- Effect of seed extract of *Trifolium subterraneum* on germination and seedling growth rate. 17920

- Irreversible inhibition of spore formation in *Alternaria* tomato by dedifferentiation of conidiophores. (Abstract). 17939

- Germination of immature and mature spores of *Diplodia natalensis*. (Abstract). 17960

- Mycelial growth and production of oospores as affected by beta-sitosterol, and the germination of oospores of *Phytophthora megasperma* var. *sojae*. (Abstract). 17979

- The role of cotton and bean seed exudate in pre-emergence infection by *Rhizoctonia solani*. 17994

- Systematic insecticide seed treatment tests on soybeans. bowling, c c. 18082

- Germination of *Fomes applanatus* basidiospores. (Abstract). 18429

- Effect of anaerobiosis on germination and viability of *Rhizopus stolonifer* sporangiospores. (Abstract). 18431

- Effect of temperature on germination of *Podosphaera leucotricha* conidia. (Abstract). 18436

- Extent of *Aspergillus flavus* and *Fusarium oxysporum* germination in soil and in the rhizosphere of peanut. (Abstract). 18445

- Comparison of the effects of gibberellic acid and aflatoxin in germinating seeds. 18449

- Teliospore germination of *Puccinia recondita* f. sp. *tritici* (Abstract). 18452

- Sporulation of *Cephalosporium gregatum* on naturally infested soybean straw. (Abstract). 18455

- Chemistry and physiologic action of the antibiotic phytoactin. 18492

SEED TREATMENT

- The effect of disinfection on cereal seeds determined in laboratory experiments and emergence tests in soil. 17924

- Stand loss of small grains in Florida. 18057

- The use of menazon seed dressing to decrease spread of virus yellows in sugar-beet root crops. 18098

- Chemical control of the stem nematode *Ditylenchus dipsaci*. 18137

SEED-BORNE PLANT DISEASES

- Swedish restrictions concerning the use of mercury compounds for seed disinfection. 18441

SEEDLINGS

- Comparative gibberellin relationships in tall and dwarf peas (*Pisum sativum* L.). 17916

- Effect of seed extract of *Trifolium subterraneum* on germination and seedling growth rate. 17920

- Number of zoospores of *Aphanomyces euteiches* required for infection on peas. (Abstract). 17951

- Soil fumigants tested for control of crown gall. 17973

- Seedling resistance to powdery mildew of Purdue 5752Cl-7-5-1 wheat derived from *Triticum timopheevi*. (Abstract). 17987

- The role of cotton and bean seed exudate in pre-emergence infection by *Rhizoctonia solani*. 17994

- Effect of soil fungicides on development of fungi in soil and on kernels of groundnut. 18003

- Races of *Puccinia polysora* in Nigeria. 18015

- Multiplication of *Pseudomonas glycinea* in buds of soybean seedlings. (Abstract). 18017

- Alternaria tenuis* on *Antirrhinum*. 18033

- Reproduction of the coconut lethal yellowing syndrome by mechanical inoculation of young seedlings. 18049

- Bacterial canker of tomato; inoculum level needed for infection. 18071

- Systematic insecticide seed treatment tests on soybeans. bowling, c c. 18082

- Further evaluation of acaricides for brown wheat mite control on winter wheat in Kansas, 1963-65. 18091

- Studies of the insect complex affecting seed production of ponderosa pine in California. 18101

- Western corn rootworm egg distribution and adult emergence under two corn tillage systems. 18111

SUBJECT INDEX

SILAGE

Role of host plant in production of winged forms by a green strain of pea aphid *Acyrtosiphon pisum*. 18120

Quantitative changes in organic acids in roots and leaves from grapefruit seedlings infected with *Rhadopholus similis*. 18138

The influence of an organic soil amendment on infectivity and reproduction of *Tylenchulus semipenetrans* on two citrus rootstocks. 18144

Parasitism of *Tylenchus emarginatus* on conifer seedling roots and some observations on the biology of the nematode. 18150

Light quality effects on growth and development ragweed. 18161

Forage crops, small grains. 18167

Swedish restrictions concerning the use of mercury compounds for seed disinfection. 18441

Red pine needle structure. 18451

Auxin-induced elimination of a protein in bean hypocotyl. 18470

SEEDS

Chemical control of corn head smut. 18062

Swedish studies of game that had been found dead as well as specimens that had been shot. 18411

Comparison of the effects of gibberellic acid and aflatoxin in germinating seeds. 18449

SELENIUM

Effects of selenium and vitamin E on nutritional muscular dystrophy in lambs. 18242

SEMEN

The experimental use of bull semen contaminated with *Pseudomonas aeruginosa* organisms. 18249

SEMINAL VESICLES

Seminal vesiculitis syndrome: Lesions in genital organs of young bulls. 18208

SENECIO VULGARIS

Pyrolizidine alkaloid poisoning in calves. 18412

SENSE ORGANS

Sensillae on the antennae of blood-sucking biting midges (Diptera, Ceratopogonidae). 17880

SEPTORIA

The effect of disinfection on cereal seeds determined in laboratory experiments and emergence tests in soil. 17924

SEPTORIA APICOLA

Conditions for infection of celery by *Septoria apicola*. 18059

SERODIAGNOSIS

Some characteristics of three porcine adenoviruses. 18228

Utilization of the card test in brucellosis eradication. 18299

Hydatid latex agglutination with scolex and crude polysaccharide antigens. 18360

SEROLOGICAL TESTS

Studies of the epidemiology of arthropod-borne virus infections at Mitchell River Mission, Cape York Peninsula, north Queensland. II. Arbovirus infections of mosquitoes, man, and domestic fowls, 1963-1966. 17910

Identification of strains of watermelon mosaic virus by serology and other characteristics. (Abstract). 18037

Tomato bushy stunt virus on tomato crops in Argentina. 18047

Occurrence of Agrophron mosaic virus in Montana. 18058

Avian adeno-like viruses- Characterization and comparison of seven isolates. 18224

Some characteristics of three porcine adenoviruses. 18228

California-encephalitis-group viruses in Florida rabbits: Report of experimental and sentinel studies. 18265

Serological tests for the detection of antibodies to *Mycoplasma gallisepticum* in chickens and turkeys. 18266

Antibody response to immunization in experimental Salmonellosis. 18269

Foot-and-mouth disease in swine. I. The immune response of swine to chemically-treated and non-treated foot-and-mouth disease virus. 18288

A comparison of methods of measuring the persistence of neutralizing and haemagglutinin-inhibiting antibodies to louping ill virus in experimentally infected sheep. 18302

Experimental production of rheumatoid arthritis of swine: Physiopathologic changes of tissues. 18319

Serologic survey for toxoplasma antibodies in a colony of research dogs and cats in California. 18323

Biochemical and serologic characteristics of *Vibrio* isolants from cattle. 18337

Some studies on the pathogenesis and epizootiology of epizootic hemorrhagic disease of deer. 18340

SERRATIA MARCESCENS

Results concerning humoral immunity of *Pyrrhocoris apterus* L. and *Galleria mellonella* F. 17842

SERUM

Some studies on the pathogenesis and epizootiology of epizootic hemorrhagic disease of deer. 18340

SERUM NEUTRALIZATION TEST

A comparison of methods of measuring the persistence of neutralizing and haemagglutinin-inhibiting antibodies to louping ill virus in experimentally infected sheep. 18302

Immunization of foxes with inactivated virus rabies vaccine. 18315

SEX

A description of the pupa of the pales weevil, *Hylobius pales*, and a method for identifying its sex. 17773

Sex ratio in pupae of the yellow-striped armyworm. 17789

A sex pheromone from the citrus mealybug. 17828

Ordered chromosomal DNA synthesis in *Drosophila melanogaster*. 17835

Costelytra zealandica (White) sex attraction. 17845

Meiotic drive and visible polarity in *Drosophila* spermatocytes. 17909

Actions of vitamin D3 and sex hormones on calcium metabolism of bone in birds, particularly in hens. 18226

Pathological changes of blood depending on sex and age of rabbits experimentally infected with a sheep strain of *Strongyloides papillosus*. 18358

SEX ATTRACTANTS

Field studies of sex attraction in the boll weevil. 17790

New techniques to bioassay the sex attractant of pink bollworms with olfactometers. 17829

SEX DETERMINATION

The effect of environment on sex determination in *Heterodera rostochiensis*. 18154

SHEEP

Effects of urease inhibitors on sheep fed diets containing urca. 18182

Mycotic abortion in ewes produced by *Aspergillus fumigatus*: pathologic changes. 18184

The effect of exposure to dieldrin on avoidance response extinction and conditioned heart rate in sheep. 18196

Bluetongue of sheep and cattle: past, present, and future. 18217

Some physiological responses of ruminants to 2,2-dichlorovinyl dimethyl phosphate. 18219

Some nutritional aspects of dietary magnesium in ruminants and poultry. 18227

Artificially induced immunity to enzootic abortion in ewes. 18246

Oxalate metabolism in sheep II. Effect of low level Halogeton glomeratus intake on electrolyte metabolism. 18262

Psittacosis-lymphogranuloma venereum agent isolated during an abortion epizootic in goats. 18286

Placental pathology of experimentally-induced enzootic abortion in ewes. 18300

A comparison of methods of measuring the persistence of neutralizing and haemagglutinin-inhibiting antibodies to louping ill virus in experimentally infected sheep. 18302

Experimental bluetongue disease in white-tailed deer. 18336

Pneumonia of sheep in Kenya. II. Pathology of chronic progressive pneumonia. 18338

Effect of desiccation on survival of the free-living stages of *Trichostrongylus colubriformis*. 18353

Rearing lambs free of gastrointestinal nematodes. 18368

Studies on the spring phenomenon in ovine helminthiasis. I. Spring rise in stabled sheep. 18372

A temperature study of the overwintering site of the sheep bot fly *Oestrus ovis* L. 18373

SHELLFISH

Detoxification of pesticidal residues in fish and shellfish. 18393

SILAGE

Niagara NIA-10242 insecticide residues: Their persistence in coastal bermudagrass, corn, and silages, and their effect, fed in silage, on lactating cows. 18400

SUBJECT INDEX

SIMULIUM DAMNOSUM

SIMULIUM DAMNOSUM

The flight range of *Simulium damnosum*. 17854

SINNINGIA

Pathogenic and cultural variation in *Phytophthora nicotianae* var *parasitica* from greenhouse plants. 18064

SIPHONA KANGWAGYEI

Siphona kangwagyei n. sp., a blood sucking fly from Uganda (Diptera: Muscidae). 17776

SIPHONAPTERA

Fleas (Siphonaptera) new to Norway. 17760
Epizootiologic observations of canine filariasis in Georgia. 18330

SIREX NOCTILIO

Parasitic and free-living cycles in entomogenous nematodes of the genus *Deladenus*. 17731

SKIN

Note on the determination of carbaryl residues in hen skin. 18406

SLUGS

Treatment for poisoning by slug bait. 18187

SNAILS

Hyperglycemia induced by 5-hydroxytryptamin in *Achatina fulica* (gastropod mollusca). 18178

SOCIAL INSECTS

The leaf cutting ant, *Atta capiguara*, curse of the pastures. 17780
Food distribution within colonies of the Argentine ant, *Iridomyrmex humilis* (Mayr). 17859

SODIUM

Permeability and excitation of insect muscle. 17896
Effect of calcium availability on alfalfa grown in calcareous high sodium soils. 18464

SODIUM HYPOCHLORITE

Morphological and physiological aspects of sporogony and oocyst viability in the protozoan parasites *Eimeria tenella* and *Eimeria stiedae* (Coccidia). 18419

SOIL ADSORPTION

Effects of watering frequency and saturation time on fine root necrosis of peach caused by *Pythium* spp. (Abstract). 17952

SOIL ANALYSIS

Effect of soil sterilization and soil type on apparent susceptibility of two muskmelon varieties to *Fusarium oxysporum* f. sp. *melonis*. (Abstract). 17976

SOIL BACTERIA

The suppression of actinomycetes by PCNB in culture media used for enumerating soil bacteria. 17980
The effect of species of *Allium* on soil bacteria in relation to germination of sclerotia of *Sclerotium cepivorum* Berk. 18434

SOIL CHEMISTRY

The effect of decomposing organic matter on zinc level in soil and plants. 18061

SOIL CONTAMINATION

Comparative Cs-137 content of agricultural crops grown in a contaminated soil. 18389

SOIL FUMIGATION

Effect of variety and fumigation on nematode populations in oats, wheat, and rye. 18147

SOIL FUNGI

The biology and ecology of *Fusarium oxysporum* f. *melonis* in soil and the root zones of host and nonhost plants. 17944

Prevalence of *Thielaviopsis basicola* in naturally infested soil after cultivation of various crops for five consecutive years. (Abstract). 17997

Effect of soil fungicides on development of fungi in soil and on kernels of groundnut. 18003

Use of fluorescent brightener as aid to studies of fungistasis and nematophagous fungi in soil. 18440

SOIL MICROBIOLOGY

The suppression of actinomycetes by PCNB in culture media used for enumerating soil bacteria. 17980

SOIL MICROORGANISMS

The effect of amino acid antimetabolites on four nematode species and their host plants. 18146

Gamma irradiation of *Heterodera schachtii*. 18152

Plant-parasitic nematodes in grape and raspberry soils of Ontario and a comparison of extraction techniques. 18153

SOIL PROPERTIES

Effects of nematode extraction method, soil mixture, and nematode numbers on the transmission of tobacco ringspot virus by *Xiphinema americanum*. 18070

SOIL SERIES

Manganese toxicity in celery. 18413

SOIL STERILIZATION

Effect of soil sterilization and soil type on apparent susceptibility of two muskmelon varieties to *Fusarium oxysporum* f. sp. *melonis*. (Abstract). 17976

Chemical control of the stem nematode *Ditylenchus dipsaci*. 18137

SOIL TEMPERATURE

Temperature relationships of the development of northern corn rootworm eggs. 17802

Soil fumigants tested for control of crown gall. 17973

Stand loss of small grains in Florida. 18057

Injury to *Heterodera tabacum* by high soil temperatures. (Abstract). 18143

SOIL TESTING

Evaluation of nematocides for controlling reniform nematodes on sweetpotatoes. 17918

Soil fumigants tested for control of crown gall. 17973

SOILS

Comparison of application rates of some soil insecticides for control of western corn rootworm larvae in Missouri. 17866

Life history of the looper *Phigalia titea* in Virginia. 17889

The effect of carbon source, carbon to nitrogen ratios, and organic amendments on survival of propagules of *Verticillium albo-atrum* in soil. 17921

Effect of soil fungicides on development of fungi in soil and on kernels of groundnut. 18003

Effects on populations of corn rootworms of aldrin residues in soil four years after application. 18087

Oviposition preferences of western corn rootworms for various soil surface conditions. 18100

Loss of phorate from a granular formulation applied in the soil. 18110

Western corn rootworm egg distribution and adult emergence under two corn tillage systems. 18111

The influence of an organic soil amendment on infectivity and reproduction of *Tylenchulus semipenetrans* on two citrus rootstocks. 18144

Factors influencing the population fluctuation of *Pratylenchus penetrans* in soil. III. Host plant species. 18156

Evaluation of weed control treatments in field-grown tobacco. 18158

Ornamentals. 18164

Fencerow weed control made easy. 18165

Proposed federal Formosan termite quarantine safeguards. Buyer, seller. 18378

Inorganic composition and microscopy of citrus roots grown under several copper and soil amendment conditions. 18428

Effect of calcium availability on alfalfa grown in calcareous high sodium soils. 18464

SOLAR DISTURBANCES

The connection between sunspot cycles and mass mortality among vertebrates and non-vertebrates due to parasitic activity. 18327

SOLUTES

Concentrations of solutes in blister rust infections of western white pine. (Abstract). 18030

SORGHUM

Spider populations in grain sorghums. 17784

Notice of filing of petition regarding pesticide chemicals. kirk, j k. 18476

SORGHUM HALEPENSE

Ultrastructure of *Zea mays* leaf cells infected with Johnson grass strain of sugarcane mosaic virus. (Abstract). 17986

SOYBEAN MEAL

Alterations in the response and functions of the chicken pancreas induced by feeding unheated and autoclaved soybean meal. 18314

SOYBEANS

A *Phytophthora* from subterranean clover roots that attacks soybean and other legumes. (Abstract). 18004

Multiplication of *Pseudomonas glycinea* in buds of soybean seedlings. (Abstract). 18017

Systematic insecticide seed treatment tests on soybeans. bowling, c c. 18082

Effect of temperature and variety on nematode development and gall production on soybeans infected with *Meloidogyne incognita acrita*. (Abstract). 18131

Weeds in agronomic crops. Field corn, soybeans. 18159

Sporulation of *Cephalosporium gregatum* on naturally infested soybean straw. (Abstract). 18455

Notice of filing of petition regarding pesticide chemicals. kirk, j k. 18476

SPALAX EHRENBERGI

On the dispersal of the bulbs of *Oxalis cernua* Thunb. by mole-rats (*Spalax ehrenbergi* Nehring). 18163

SUBJECT INDEX

STORAGE

SPECTROMETRY

Determination of cesium-137 and related sampling problems of dairy cattle feeds, 1962-1967. 18197

SPECTROSCOPY

Influence of the spectral composition of certain bands of visible and near visible radiation on diapause in the boll weevil. 17833

SPERMATOCYTES

Meiotic drive and visible polarity in *Drosophila* spermatocytes. 17909

SPHACELOTHECA REILIANA

Chemical control of corn head smut. 18062

SPHODROMANTIS

On the *Sphodromantis* of the species *viridis* from northwest Africa. 17849

SPIDERS

A new species of *Harpactea* from the Pontine Islands (Araneae, Dysderidae). 17737

Notes on the chorology and ecology of Araneidae from the Alban Hills (Araneae). 17741

Erigonids from the Pontine Islands (Araneae Erigonidae). 17745

Spider populations in grain sorghums. 17784

SPINACH

Notice of filing of petition regarding pesticide chemicals. kirk, j.k. 18476

SPINDLE TUBER (POTATOES)

Potato spindle tuber virus: in situ sensitivity of the infectious agent to ribonuclease. (Abstract). 17974

SPLEEN

Anaplasma marginale-infectivity in splenectomized and radiated rabbits. 18210

SPODOPTERA EXIGUA

A study of the nuclear polyhedrosis virus on the beet armyworm, *Spodoptera exigua* (Hubner), with emphasis on stability, pathogenicity and histopathology. 17837

SPODOPTERA FRUGIPERDA

Resistance in bermudagrass to the fall armyworm. 18104

SPORE GERMINATION

The pathogenicity of secondary and tertiary basidiospores of *Cronartium fusiforme*. 18052

On light-sensitivity in germinating uredospores of wheat brown rust. 18080

Physiology of germination of chlamydospores of *Phytophthora cinnamomi*. 18463

SPORES

Irreversible inhibition of spore formation in *Alternaria* tomato by dedifferentiation of conidiophores. (Abstract). 17939

Germination of immature and mature spores of *Diplodia natalensis*. (Abstract). 17960

Mycelial growth and production of oospores as affected by beta-sitosterol, and the germination of oospores of *Phytophthora mcgasperma* var. *sojae*. (Abstract). 17979

Clinical aspects of toxic infections by anaerobic germ spores in ruminants. 18229

Germination of *Fomes applanatus* basidiospores. (Abstract). 18429

Effect of anaerobiosis on germination and viability of *Rhizopus stolonifer* sporangiospores. (Abstract). 18431

Dispersal patterns of *Monilinia laxa* spores in peach, prune, apricot, and almond trees during early spring. (Abstract). 18435

Extent of *Aspergillus flavus* and *Fusarium oxysporum* germination in soil and in the rhizosphere of peanut. (Abstract). 18445

Sporulation of *Cephalosporium gregatum* on naturally infested soybean straw. (Abstract). 18455

Temperature effects on *Pleurotus ostreatus* spore production (Abstract). 18461

SPRAYING

Defense mechanisms of arthropods. XXI. Formic acid and n-nonyl acetate in the defensive spray of two species of *Helluomorphoides*. 17816

Patch canker of *Hevea brasiliensis* caused by *Phytophthora palmivora*. 17967

Carbon dioxide-powered plot sprayer for turf-grass disease control fungicide application. 17969

Alternaria tenuis on *Antirrhinum*. 18033

Increasing the efficacy of fungicidal control of black pod rot of cacao incited by *Phytophthora palmivora*. (Abstract). 18041

Conditions for infection of celery by *Septoria apiicola*. 18059

Chemical control of corn head smut. 18062

Effect of MCPA on lettuce pre-inoculated with lettuce mosaic virus. 18075

New fungicides effective for pecan scab control in Georgia. 18077

Further evaluation of acaricides for brown wheat mite control on winter wheat in Kansas, 1963-65. 18091

Tests with insecticides for the control of resistant *Myzus persicae* (Sulzer) on year-round chrysanthemums. 18095

Introducing and establishing the noninclusion virus of the citrus red mite in citrus groves. 18117

Preplanting treatments for weed control in Connecticut shadegrown tobacco. 18157

Fencerow weed control made easy. 18165

Forage crops, small grains. 18167

Further evaluation of animal systemic insecticides, 1967. 18347

Northern fowl mite control on mature turkeys on range. 18350

The statistical description of a spray in terms of drop velocity, size, and position. 18488

SPRAYING EQUIPMENT

Special equipment in the Box Elder County Mosquito and Fly Abatement District. 17911

Evaluation of weed control treatments in field-grown tobacco. 18158

Speedometer adapted for fog calculations. 18494

SQUASH

Vegetable crops III. Cucumbers, watermelons, cantaloupes, squash. 18168

STAPHYLINIDAE

Some comparative data on ecology and behaviour of Staphylinid beetles (Coleoptera, Staphylinidae). 17890

STAPHYLOCOCCUS

Detection of antibiotic-fast staphylococci in otitis externa in dogs. 18346

STAPHYLOCOCCUS AUREUS

A case of porcine endocarditis associated with *Staphylococcus aureus*. 18248

STARVATION

Reproduction of some poorly known species of *Blattaria*. 17765

STATISTICAL ANALYSIS

The Columbian timber beetle, *Corthylus columbianus* (Coleoptera: Scolytidae). VIII. Artifacts and characteristics of the host tree. 18129

Evaluation of some taxonomic indices in the potato rot nematode *Ditylenchus destructor* Thorne, 1945. 18151

STATISTICAL METHODS

Correction coefficients for prognosing the development of insects by sums of effective temperatures (*Agrotis scgetum* Schiff taking of example). 17810

Estimation of radiation resistance values of microorganisms in food products. 18383

The statistical description of a spray in terms of drop velocity, size, and position. 18488

STATOLON

Influence of statolon-induced interferon on rabies virus infection in mice. 18322

STEM RUST (WHEAT)

Stem rust infection and development in artificially inoculated fields of wheat at Hays, Kans., and its effect on yield, 1960 to 1965. (Abstract). 18022

STERILIZATION

Isolation and purification of metabolites found in the urine of male rats fed aldrin and dieldrin. 18379

STIMULANTS

Studies on the pathogen and vector of dutch elm disease. A. Morphogenesis in *Ceratocystis ulmi*. B. Chemicals stimulating feeding by *Scolytus multistriatus*. II. An improved method for the isolation of a toxic metabolite from *Rhizoctonia leguminicola*. 18051

STOMACH

Strychnine levels in tissues and stomach contents of poisoned dogs: An eleven year survey. 18254

Changes in the efficacy of three anthelmintics during the maturation of a nematode (*Trichinella spiralis*). 18357

Parasitic development of *Obeliscoides cuniculi* in rabbits. 18375

STOMATA

Stomatal movements; a yearly rhythm. 18473

STOMOXYS CALCITRANS

Chemical sterilization of the stable fly *Stomoxys calcitrans* (Linne), with metepa and hempa. 17797

STORAGE

Pyrethrins-piperonyl butoxide applied as a fog in an empty grain bin. 17897

SUBJECT INDEX

STORAGE DISEASES

Relation of invasion of cereal grains and oil seeds by storage fungi to increase in total and major individual fatty acids. (Abstract).

18031

Survival of *Rhopalosiphum padi* in stored grain during cold weather.

18097

Factors affecting the storage, excretion, and placental transfer of dieldrin in dairy cattle.

18218

STORAGE DISEASES

Fungi in stored products.

18377

STRAW

Sporulation of *Cephalosporium gregatum* on naturally infested soybean straw. (Abstract).

18455

STRAWBERRIES

The foraging behavior of honeybees (*Apis mellifera*) and bumblebees (*Bombus* Spp.) on blackcurrant (*Ribes nigrum*), raspberry (*Rubus idaeus*) and strawberry (*Fragaria x ananassa*) flowers.

17732

STREAMS

Effects on microfauna - freshwater.

18394

Oxygen sag and stream self-purification.

18407

STREPTOCOCCUS AGALACTIAE

Immunochemical and biochemical interrelationship of *Streptococcus agalactiae* to the bovine.

18238

STREPTOCOCCUS FECALIS

Liver granulomas of turkeys caustive agents and mechanism of infection.

18294

STREPTOMYCES

Degradation of diazinon by synergistic microbial action.

18384

STRIPE MOSAIC (BARLEY)

Effects of barley stripe mosaic virus infection on the respiration of barley leaves. (Abstract).

17990

STRIPE RUST (WHEAT)

The summer biology of *Puccinia striiformis* in southeastern Washington. I. Induction of infection during the summer.

18072

STRONGYLOIDES

Gastrointestinal parasitism in feeder calves of southern Illinois.

18279

Pathological changes of blood depending on sex and age of rabbits experimentally infected with a sheep strain of *Strongyloides papillosus*.

18358

Observations on the effects of pyriminam pamoate on *Strongyloides stercoralis*.

18359

The blood of rabbits infected with *Strongyloides papillosus* after 20 serial passages through rabbits.

18367

STRONGYLOIDES RANSOMI

Treatment of *Strongyloides ransomi* infection of pigs with Thiabendazole and Dichlorvos.

18275

STRONGYLOIDES STERCORALIS

Helminths as vehicles and synergists of microbial infections.

18376

STRONGYLOIDIASIS

Rearing lambs free of gastrointestinal nematodes.

18368

STRYCHNINE

Strychnine levels in tissues and stomach contents of poisoned dogs: An eleven year survey.

18254

STYRENE POLYMERS

Gel permeation cleanup for malathion in wheat, using a non-ionic, cross-linked polystyrene polymer.

18482

SUBTERRANEAN CLOVER

Effect of seed extract of *Trifolium subterraneum* on germination and seedling growth rate.

17920

A *Phytophthora* from subterranean clover roots that attacks soybean and other legumes. (Abstract).

18004

SUCROSE

Studies on the effects of Hg(II) and sucrose on the mechanical transmission of tobacco mosaic virus ribonucleic acid to pinto bean (*Phaseolus vulgaris* L.).

18011

SUGAR BEETS

Relationship of ethylene to curly top symptoms. (Abstract).

17988

The use of menazon seed dressing to decrease spread of virus yellows in sugar-beet root crops.

18098

Anthrenus melanocerus as a predator of the green peach aphid on sugar beets and broccoli.

18121

Comparative Cs-137 content of agricultural crops grown in a contaminated soil.

18389

SUGARCANE

Mortality staging of dominant lethals induced in the F1 generation of sugarcane borer; *Diatraea saccharalis* (F.).

18127

Notice of filing of petition regarding pesticide chemicals. kirk, j.k.

18476

SULFAMETER

Experimental treatment of subclinical porcine case of *Toxoplasma* with sulfamonomethoxine and pyrimethamine and its influence upon hemagglutinating antibody.

18202

SULFUR

Studies on the fungitoxicity of captan. Vi. Decomposition of 35S-labelled captan by *Neurospora crassa* conidia.

18469

SULFUR COMPOUNDS

Gas chromatographic detector for simultaneous sensing of phosphorus and sulfur-containing compounds by flame photometry.

18483

SUNFLOWERS

Chemical control of the sunflower moth on sunflowers.

18123

A biochemical role for boron.

18456

SUPELLA SUPPLECTILUM

Influence of repellency on the efficacy of blatticides. IV. Comparison of four cockroach species.

17814

SURFACE-ACTIVE AGENTS

On a mechanism of fungicidal action of surface-active agents.

18475

SURVEYS

On the distribution of *Ixodes angustus* Neum. (Ixodidae).

17768

Larch sawfly survival in relation to water levels and microtopography in tamarak bogs.

17839

Cereal leaf miner in the South-east Region.

18092

Occurrence of fiber containing fluorescent spots associated with *Aspergillus flavus* boll rot in the U. S. cotton crop of 1967.

18108

Physiologic race changes in barley mildew 1964-67.

18130

Strychnine levels in tissues and stomach contents of poisoned dogs: An eleven year survey.

18254

Animal sentinels in a statewide arthropod-borne encephalitis surveillance program.

18298

Tick resistance in cattle: its stability and correlation with various genetic characteristics.

18348

The toxicity and distribution of mercury.

18410

SWEETPOTATOES

Evaluation of nematocides for controlling reniform nematodes on sweetpotatoes.

17918

SWINE

Hemiptera associated with pig carrion.

17764

Effects of high gossypol cottonseed meal on the electrocardiogram of swine.

18179

Correction: Hemophilia-like disease of swine: Cytogenetic studies.

18181

Oligosaccharidases from *Macracanthorhynchus hirudinaceus* (*Acanthocephala*) from swine.

18186

Levels of 5 beta-pregnan-3 alpha, 6 alpha-diol-20-one in urine and its relationship to other metabolites of progesterone in urine of the non-pregnant domestic sow.

18189

Comparison of metabolites of progesterone-4-14C in urine from a nonpregnant domestic sow.

18190

Experimental treatment of subclinical porcine case of *Toxoplasma* with sulfamonomethoxine and pyrimethamine and its influence upon hemagglutinating antibody.

18202

Microflora associated with agalactia syndrome of sows.

18207

Salmonella typhimurium infection in Minnesota swine.

18209

Properties of Aujeszky's disease virus strains isolated from swine pneumonia cases.

18215

Hemophilia-like disease of swine: Cytogenetic studies.

18223

Some characteristics of three porcine adenoviruses.

18228

Effects of attenuated hog cholera virus in pregnant swine at various stages of gestation.

18230

Histopathologic changes in male swine with experimental Brucellosis.

18237

A collective outbreak of transmissible gastroenteritis in swine. III. Isolation of a virus with cytopathogenic effect and its properties.

18241

Newcastle disease: A legal interpretation.

18245

A case of porcine endocarditis associated with *Staphylococcus aureus*.

18248

An enzootic of pseudorabies in swine in California.

18257

Serologic response of swine to *Escherichia coli* antigens.

18273

Treatment of *Strongyloides ransomi* infection of pigs with Thiabendazole and Dichlorvos.

18275

SUBJECT INDEX

TEMPERATURE

- Prevalence of *Trichinella spiralis* in wild animals on two Illinois swine farms. 18282
- Electron optical and buoyant density studies of hog cholera virus. 18285
- Foot-and-mouth disease in swine. I. The immune response of swine to chemically-treated and non-treated foot-and-mouth disease virus. 18288
- Foot-and-mouth disease in swine. II. Some physicochemical characteristics of antibodies produced by chemically-treated and non-treated foot-and-mouth disease virus. 18289
- Histidine decarboxylase in strains of *Escherichia coli* isolated from normal swine and swine with edema disease and enteric disorders. 18307
- Experimental production of rheumatoid arthritis of swine: Physiopathologic changes of tissues. 18319
- Sources of salmonellas in market swine. 18342
- Stained monolayer test: a color test in disposable plastic trays for titrating transmissible gastroenteritis virus and neutralizing antibodies. 18343
- Helminthic infestations of piglets with reference to lesions encountered. 18371
- Response of early-weaned pigs to amino acid supplementation of corn diets. 18391
- SWINE INFLUENZA VIRUS**
Helminths as vehicles and synergists of microbial infections. 18376
- SYMBIOSIS**
On Diptera in small mammal burrows in northern Europe and southern Spain. 17750
- SYMPETRUM DECOLORATUM**
On the Metacercaria of *Prosthogonimus putchkowskii* in *Sympetrum decoloratum* (Odonata: insecta) with observations on its development in chicks. 18370
- SYNANTHEDON PICTIPES**
A medium for laboratory rearing of the peach tree and lesser peach tree borers. 18114
- TABLES (DATA)**
Organothiocyanates as insecticides and carbamate synergists. 17785
- Temperature relationships of the development of northern corn rootworm eggs. 17802
- Difference in response of two strains of screw-worm flies to the male pheromone. 17823
- New techniques to bioassay the sex attractant of pink bollworms with olfactometers. 17829
- Field tests of chemicals for control of the European corn borer. 17831
- Effects of mold inhibitors in larval diet on the biology of the cabbage looper. 17847
- Comparison of application rates of some soil insecticides for control of western corn rootworm larvae in Missouri. 17866
- Rearing stored product insects for laboratory studies: Six species of moths. 17887
- Winter oviposition by the alfalfa weevil in Virginia. 17900
- Aphid vectors of barley yellow dwarf virus in blacklight traps in eastern United States. 18089
- Studies on a biological and a chemical method of controlling the dark rice field mosquito in Louisiana. 18090
- Further evaluation of acaricides for brown wheat mite control on winter wheat in Kansas, 1963-65. 18091
- Studies on hydrogen phosphide against the red flour beetle in a column of paddy. 18113
- Chemical control of the sunflower moth on sunflowers. 18123
- Further evaluation of animal systemic insecticides, 1967. 18347
- Niagara NIA-10242 insecticide residues: Their persistence in coastal bermudagrass, corn, and silages, and their effect, fed in silage, on lactating cows. 18400
- Light stimulated biosynthesis of gibberellins in *Fusarium moniliforme*. 18462
- TACHINIDAE**
A revision of the oriental species of *Palcatoria* Townsend (Diptera: Tachinidae, Sturmiini). 17744
- TAR SPOT (CORN)**
Preliminary studies on *Phyllachora maydis* affecting corn in Central America. (Abstract). 18054
- TAXONOMY**
Two new species of Thyasidae (Acarina) from Nikko National Park Japan. 17752
- Fleas (Siphonaptera) new to Norway. 17760
- Serological diagnostic method without isolation of *Erwinia amylovora* culture from a diseased plant. 18002
- Introduction to *Bacillus thuringiensis* and its uses. 18103
- The barley root-knot nematode in Illinois. 18135
- Evaluation of some taxonomic indices in the potato rot nematode *Ditylenchus destructor* Thorne, 1945. 18151
- Some characteristics of three porcine adenoviruses. 18228
- Biochemical and biophysical properties of canine distemper virus. 18306
- TELIOPORES**
Teliospore germination of *Puccinia recondita* f. sp. tritici (Abstract). 18452
- TEMPERATURE**
An improved incubator for insects for operation above room temperature and relative humidity. 17734
- Circadian emergence rhythm of a tropical scolytid, *Xyleborus ferrugineus*. 17767
- A prodrome of the genus *Orthopodomyia* (Diptera, Culicidae). 17775
- Bionomics of the mosquito *Anopheles franciscanus* Meckracken in California. 17783
- Oncogenesis in the (tu) y2v;vg strain of *Drosophila melanogaster*. 17787
- Studies of caste differentiation in *Myrmica rubra* L. 9. Maternal environment and the caste bias of larvae. 17791
- Temperature relationships of the development of northern corn rootworm eggs. 17802
- Correction coefficients for prognosing the development of insects by sums of effective temperatures (*Agrotis segetum* Schiff taking of example). 17810
- Ecological characteristics of the diapause of the Phytome of the Luzerne *Hypera variabilis*. (Col. Curculionidae). 17817
- Mechanical and electrical activity in the indirect flight muscles of the honey bee. 17820
- Field and laboratory studies on the ecology and morphology of *Nabis americana* Carayon and its parasites in California. 17834
- A study of the nuclear polyhedrosis virus on the beet armyworm, *Spodoptera exigua* (Hübner), with emphasis on stability, pathogenicity and histopathology. 17837
- Costelytra zealandica* (White) sex attraction. 17845
- The influence of temperature and humidity on the development of *Tenebrio molitor* L. 17850
- On cold resistance of the pea aphid *Acyrtosiphon pisum* Harr (Homoptera, Aphididae). 17869
- Role of photoperiod, temperature, and injury in induction and termination of the pupal diapause of *Heliothis zea* (Boddie). 17877
- Rearing stored product insects for laboratory studies: Six species of moths. 17887
- Pyrethrins-piperonyl butoxide applied as a fog in an empty grain bin. 17897
- Mechanisms of inhibition and uncoupling of oxidative phosphorylation in housefly mitochondria. 17899
- Winter oviposition by the alfalfa weevil in Virginia. 17900
- Comparative life histories of chlordane-resistant and nonresistant German cockroaches. 17901
- Meiotic drive and visible polarity in *Drosophila* spermatocytes. 17909
- Studies of the epidemiology of arthropod-borne virus infections at Mitchell River mission, Cape York Peninsula, north Queensland. I. Mosquito collections, 1963-1966. 17914
- Effect of seed extract of *Trifolium subterraneum* on germination and seedling growth rate. 17920
- The relation of rainfall, relative humidity, and temperature to late blight of potato in Sedes, Sindos-Lahanokipi of Nomos Thessaloniki. 17925
- Disease involvement of nonallieaceous hosts by *Pyrenochaeta terrestris*. (Abstract). 17947
- Local lesion development in Turkish tobacco leaves heated after inoculation with tobacco mosaic virus. (Abstract). 17983
- High-temperature-induced insoluble coat protein in tobacco mosaic virus (TMV) -infected plants. (Abstract). 17993
- The role of cotton and bean seed exudate in pre-emergence infection by *Rhizoctonia solani*. 17994
- Factors influencing aflatoxin accumulation in peanut kernels and the associated mycoflora. 18043
- Cross protection between a plant virus and potato psyllid yellows. 18067

SUBJECT INDEX

TENEBRIO MOLITOR

- On light-sensitivity in germinating uredospores of wheat brown rust. 18080
- Effects of early-, mid-, and late-season infestations of two-spotted spider mites on the yield of cotton. 18094
- Survival of *Rhopalosiphum padi* in stored grain during cold weather. 18097
- The tolerance of imported commodities to fumigation with methyl bromide. 18112
- Effect of temperature and variety on nematode development and gall production on soybeans infected with *Meloidogyne incognita acrita*. (Abstract). 18131
- The growth, development and control of common ragweed. 18160
- Growth, development and control of wild radish. 18162
- Characterization studies on feline panleucopenia virus. (with). II. Pathogenesis in the host. 18233
- An enzootic of pseudorabies in swine in California. 18257
- The penetration patterns of *Salmonella typhimurium* through the outer structures of chicken eggs. 18341
- Effect of desiccation on survival of the free-living stages of *Trichostrongylus colubriformis*. 18353
- A temperature study of the overwintering site of the sheep bot fly *Oestrus ovis* L. 18373
- Fungi in stored products. 18377
- Water pollution. Effects of pollution on fish life. General aspects of water pollution biology. 18395
- Oxygen sag and stream self-purification. 18407
- Dispersal patterns of *Monilinia laxa* spores in peach, prune, apricot, and almond trees during early spring. (Abstract). 18435
- Effect of temperature on germination of *Podosphaera leucotricha* conidia. (Abstract). 18436
- Electron micrographs of *Rhizopus stolonifer* sporangiospores subjected to chilling. (Abstract). 18458
- Temperature effects on *Pleurotus ostreatus* spore production (Abstract). 18461
- Stomatal movements; a yearly rhythm. 18473
- Metabolism of amitrole (3-amino-1,2,4-triazole) in relation to the differential susceptibility of *Cirsium arvense* (L.) Scop. ecotypes. 18474
- Low temperature irradiation applied to neutron activation analysis of mercury in human whole blood. 18484
- The statistical description of a spray in terms of drop velocity, size, and position. 18488
- Engineering and biological aspects of designing and using a selective flame weeder. 18493

TENEBRIO MOLITOR

- The influence of temperature and humidity on the development of *Tenebrio molitor* L. 17850
- Experimental infection of gnotobiotic *Tenebrio molitor* and white rats with *Hymenolepis diminuta* (Cestoda: Cyclophyllidae). 18363

TERMITES

- Suhterranean termite studies in southern Ontario. 17747
- Proposed federal Formosan termite quarantine safeguards. Buyer, seller. 18378

TESCHEN DISEASE VIRUS

- Biophysical studies of Teschen disease virus (Talfan strain). 18339

TETANUS TOXOID

- Response of lymphocyte-depleted calves to fluid tetanus toxoid. 18293

TETRAMISOLE

- Changes in the efficacy of three anthelmintics during the maturation of a nematode (*Trichinella spiralis*). 18357

TETRANYCHIDAE

- A new genus and species of the phytophagous mite (Bryobiidae, Acariformes). 17757

TETRANYCHUS

- Effects of early-, mid-, and late-season infestations of two-spotted spider mites on the yield of cotton. 18094

THEILERIA PARVA

- The development of *Theileria parva* in the salivary glands of the tick, *Rhipicephalus appendiculatus*. 17873

THERAPEUTICS

- Gamma-ray-induced mutations in *Drosophila melanogaster* oocytes: The phenomenon of dose rate. 17904
- Chemical treatment of Hypoxylon cankers on aspen. (Abstract). 17959
- Resistance breakdown in maize to maize dwarf mosaic virus after treatment with atrazine. (Abstract). 18027
- Experimental treatment of subclinical porcine case of *Toxoplasma* with sulfamonomethoxine and pyrimethamine and its influence upon hemagglutinating antibody. 18202
- Field experiment with the antioecidial dimethylalum. 18259
- Medicated feeds; approval of new drug applications. 18270
- Contagious bovine pleuropneumonia and the problems associated with its control. 18276
- The use of polyvalent inactivated vaccine therapeutically against equine influenza. 18278
- An outbreak of Ornithosis in fowls. 18318
- Common disease problems in laboratory animals. 18332
- Detection of antibiotic-fast staphylococci in otitis externa in dogs. 18346
- Diagnosis, treatment, and preventive therapy for heartworms. 18361

THERAPY

- Experimental studies in mice on the therapy of trichinellosis (Thiabendazole, Neguvon, cortisone, azulen, sera). 18366

THERIOAPHIS MACULATA

- Lack of cytoplasmic inheritance of alfalfa resistance to the spotted alfalfa aphid. 18099

THIAZOLYL-BENZIMIDIZOLE, 2-(4-

- Treatment of *Strongyloides ransomi* infection of pigs with Thiabendazole and Dichlorvos. 18275
- Changes in the efficacy of three anthelmintics during the maturation of a nematode (*Trichinella spiralis*). 18357

THIELAVIOPSIS BASICOLA

- Prevalence of *Thielaviopsis basicola* in naturally infested soil after cultivation of various crops for five consecutive years. (Abstract). 17997

THIOCYANATES

- Water, electrolyte, and acid-base alterations in experimental canine leptospirosis. 18244

THIOURACIL

- Influence of dietary vitamin A on cholesterol metabolism of chickens. 18185

THIRAM

- Effect of thiram upon glucose catabolism by *Fusarium oxysporum*. (Abstract). 18425

THYROXINE

- Mineral and endocrine interrelationships in renal calcification. 18292

THYSANOPTERA

- New Indian Thysanoptera. 17738
- The composition of the thrips species in cereals in Finland. 17753

TILLAGE

- Prevalence of *Thielaviopsis basicola* in naturally infested soil after cultivation of various crops for five consecutive years. (Abstract). 17997
- Western corn rootworm egg distribution and adult emergence under two corn tillage systems. 18111

TIMBER

- Proposed federal Formosan termite quarantine safeguards. Buyer, seller. 18378

TIME

- Temperature relationships of the development of northern corn rootworm eggs. 17802
- Results concerning humoral immunity of *Pyrrhocoris apterus* L. and *Galleria mellonella* F. 17842
- Effects of watering frequency and saturation time on fine root necrosis of peach caused by *Pythium* spp. (Abstract). 17952
- Prevalence of *Thielaviopsis basicola* in naturally infested soil after cultivation of various crops for five consecutive years. (Abstract). 17997
- Mercury content in feathers of Swedish birds from the past 100 years. 18198
- Resistance of cattle to the tick *Boophilus microplus* (Canestrini). II. Stages of the life cycle of the parasite against which resistance is manifest. 18351
- Insecticide residues in pest control. 18401
- Red light induction of gibberellin synthesis in leaves. 18468

TIMOPHEEVI WHEAT

- Seedling resistance to powdery mildew of Purdue 5752C1-7-5-1 wheat derived from *Triticum timopheevi*. (Abstract). 17987

TISSUE CULTURE

- Isolation and properties of *Plasmodiophora brassicae* plasmodia from infected crucifer tissues and tissue culture callus. (Abstract). 18008

Cytomorphological features of TMV-INFECTED tobacco callus cells in tissue culture. 18063

Properties of Aujeszky's disease virus strains isolated from swine pneumonia cases. 18215

Hog cholera: Replication of hog cholera virus in tissue culture with cytopathic effect. 18231

Electron microscopic studies on the development of vesicular stomatitis virus. 18236

Newcastle disease: A legal interpretation. 18245

The experimental production of a formalin-killed Japanese encephalitis virus vaccine from porcine kidney cell cultures. 18260

Studies on the replication of African horse-sickness virus in two different cell line cultures. 18304

Changes in protein and nucleic acid metabolism in baby hamster kidney cells infected with foot-and-mouth disease virus. 18308

Ionizing irradiation of foot-and-mouth disease virus and its ribonucleic acid. 18309

Some factors affecting interferon production by foot-and-mouth disease virus in bovine tissue cultures. 18316

Interference between modified and virulent strains of footand-mouth disease virus. 18317

Nutritional requirements of a tomato tissue culture: Growth promoting factors from peas. 18478

TISSUES

Notes on microanalytical techniques in the analysis of foods for extraneous materials. 17792

Accumulation of glycine in the fat body of the silkworm, *Bombyx mori* L. 17803

The influence of temperature and humidity on the development of *Tenebrio molitor* L. 17850

Cellular immune responses of insects to foreign tissue implants. 17871

Successful tissue transplantation of auxin-dependent tumours and some of its problems. 17935

Patch canker of *Hevea brasiliensis* caused by *Phytophthora palmivora*. 17967

The role of cotton and bean seed exudate in pre-emergence infection by *Rhizoctonia solani*. 17994

Isolation and properties of *Plasmodiophora brassicae* plasmodia from infected crucifer tissues and tissue culture callus. (Abstract). 18008

Occurrence of *Agrophron* mosaic virus in Montana. 18058

Bacterial canker of tomato; inoculum level needed for infection. 18071

Mycotic abortion in ewes produced by *Aspergillus fumigatus*: pathologic changes. 18184

Experimental colibacillosis and the development of carries in laying hens. 18206

Characterization studies on feline panleucopenia virus. (with). II. Pathogenesis in the host. 18233

The response of various tissues in neonate calves to bovine papilloma virus (BPV). 18251

Strychnine levels in tissues and stomach contents of poisoned dogs: An eleven year survey. 18254

Copper and ascorbic acid in guinea pig tissues as effected by dietary intake. 18290

Experimental production of rheumatoid arthritis of swine: Physiopathologic changes of tissues. 18319

Electron microscopy of bovine papilloma and deer fibroma viruses. 18328

Effect of culture filtrates of *Pseudomonas phaseolicola* on the growth of excised roots and callus tissue cultures of bean. (Abstract). 18422

Inorganic composition and microscopy of citrus roots grown under several copper and soil amendment conditions. 18428

Plant growth regulations in *Ditylenchus dipsaci*, *Ditylenchus trifurmis* and host tissues. 18437

Effect of 3-indoleacetic acid on phospholipid membrane components of *Avena coleoptiles*. 18481

TOBACCO

Catch of insects at different heights in traps equipped with blacklight lamps. 17736

Some effects of gamma radiation on the tobacco budworm *Heliothis virescens* (Fabricius). 17818

Local lesion development in Turkish tobacco leaves heated after inoculation with tobacco mosaic virus. (Abstract). 17983

Investigations of the mechanism of the necrotic response of *Nicotiana tabacum* L. var. Samsun NN to infection with tobacco mosaic virus. 17985

High-temperature-induced insoluble coat protein in tobacco mosaic virus (TMV) -infected plants. (Abstract). 17993

An investigation of the tobacco mosaic virus multiplication process and its effect on the metabolism of the host. 17998

Tobacco necrosis virus and its satellite virus. 18007

Differentiation of races of *Pseudomonas solanacearum* by a hypersensitive reaction of tobacco leaves. (Abstract). 18025

Induced resistance to bacterial wilt in susceptible tobacco cuttings pretreated with avirulent mutants of *Pseudomonas*. (Abstract). 18029

Interaction of *Meloidogyne javanica* and *Phytophthora parasitica* var *nicotianae* on *Nicotiana tabacum* (N. C. 95). (Abstract). 18036

Preplanting treatments for weed control in Connecticut shadegrown tobacco. 18157

Evaluation of weed control treatments in field-grown tobacco. 18158

Tobacco. 18171

Location of unique sequences in tobacco mosaic virus ribonucleic acid. 18457

TOMATOES

Experiments and considerations on the anomalies of tomatoes of the super marmande type in hot houses, connections with the use of some plant hormones. 17933

Irreversible inhibition of spore formation in *Alternaria* tomato by dedifferentiation of conidiophores. (Abstract). 17939

Susceptibility of tomato varieties to *Sclerotium rolfsii*. 17968

Tomato bushy stunt virus on tomato crops in Argentina. 18047

Pathogenic and cultural variation in *Phytophthora nicotianae* var *parasitica* from greenhouse plants. 18064

Alterations in the auxin levels of resistant and susceptible hosts induced by the curly top virus. 18066

Bacterial canker of tomato; inoculum level needed for infection. 18071

Injury to *Heterodera tabacum* by high soil temperatures. (Abstract). 18143

The effect of amino acid antimetabolites on four nematode species and their host plants. 18146

Vegetable crops. IV. Beans, sweet corn, tomatoes, rhubarb. 18173

Nutritional requirements of a tomato tissue culture: Growth promoting factors from peas. 18478

TOPOGRAPHY

Larch sawfly survival in relation to water levels and microtopography in tamarak bogs. 17839

TOXICOLOGY

Activation of malathion by the locust bodywall. 17777

Comparative toxicity (Mammalia, Insecta, Acarina) of recent S,S-dimethyl S-benzyl derivatives substituted for tri- and tetrathio phosphoric acids. 17800

Tests with insecticides for the control of resistant *Myzus persicae* (Sulzer) on year-round chrysanthemums. 18095

Loss of phorate from a granular formulation applied in the soil. 18110

Treatment for poisoning by slug bait. 18187

Effect of organo-Phosphorus insecticides on the warm blooded animals and cure thereof. 18193

Copper and ascorbic acid in guinea pig tissues as effected by dietary intake. 18290

Detoxification of pesticidal residues in fish and shellfish. 18393

The toxicity and distribution of mercury. 18410

Pyrrolizidine alkaloid poisoning in calves. 18412

Manganese toxicity in celery. 18413

On the principal way of attack of rotenone in fish. 18415

Toxic effects of odorous trace organics. 18417

The toxicology of different organo-mercurials used as fungicides. 18418

A review of drug toxicity in the cat. 18420

Active uptake of *Helminthosporium carbonum* toxin and its effect on CO₂ dark fixation by corn. (Abstract). 18453

Amino acid-(phenylazo)-phenyl derivatives. xX-III. investigation of the phytotoxic effect of the antipodes of alanine and phenylalanine-4-(phenylazo)-phenylamides against various plant species. 18472

On a mechanism of fungicidal action of surface-active agents. 18475

SUBJECT INDEX

- TOXINS**
- TOXINS**
The impact of fungi on man. QK603.0T3. 17934
A comparative study of cell wall glycopeptide structure of some bovine vibrios. 18247
Isolation of a new toxin from cultures of *Aspergillus flavus*. 18416
- TOXOCARA CANIS**
Studies on parasitic granuloma in the dog. 18365
Helminths as vehicles and synergists of microbial infections. 18376
- TOXOPLASMA GONDII**
Mitochondrial involvement in the host-parasite relationship. 18305
Serologic survey for toxoplasma antibodies in a colony of research dogs and cats in California. 18323
- TOXOPLASMOSIS**
Studies on the biological properties of *Toxoplasma gondii* in the body of insects, using *Pediculus humanus* L. as test animals. 17812
Experimental treatment of subclinical porcine case of *Toxoplasma* with sulfamonomethoxine and pyrimethamine and its influence upon hemagglutinating antibody. 18202
Mitochondrial involvement in the host-parasite relationship. 18305
- TOXOPTERA AURANTII**
The presence of tristeza virus in certain species of citrus in Cyprus. 18042
- TRACTORS**
Speedometer adapted for fog calculations. 18494
- TRANSPLANTING**
Analysis of the development of oviducts and the developmental relations between oviducts and ovaries in *Drosophila virilis*. Part one: Development of oviducts under normal and experimental conditions. Part two: Analysis of alterations occurring in oviducts during imaginal life. 17782
Cellular immune responses of insects to foreign tissue implants. 17871
Successful tissue transplantation of auxin-dependent tumours and some of its problems. 17935
Factors affecting the infection of black spruce (*Picea mariana* Mill.) transplants by *Cylindrocladium scoparium*. 18056
Preplanting treatments for weed control in Connecticut shadegrown tobacco. 18157
Ornamentals. 18164
Experimental transmission of two canine neoplasms: Lymphosarcoma and mast cell leukemia. 18310
- TRAPAEOLUM MAJUS**
Interaction of growth regulators in the senescence of nasturtium leaf disks. 18426
- TREE DISEASES**
Two new hardwood hosts of *Fomes annosus*. 17930
Anatomic effects of cadang-cadang disease on coconuts. 17940
Susceptibility of weakened cottonwood stems to fungi associated with blackstem. 18055
Additional information on the pathogenicity of *Scleroderma lagerbergii*. 18065
- New fungicides effective for pecan scab control in Georgia. 18077
- TREE INJURIES**
Role of nitrogen in wood deterioration. VI. Mycelial fractions and model nitrogen compounds as substrates for growth of *Polyporus versicolor* and other wood-destroying and wood-inhabiting fungi. 18018
Studies of the insect complex affecting seed production of ponderosa pine in California. 18101
Reinfestation of forest sites by the Texas leaf-cutting ant. 18107
Attack of the black turpentine beetle on roots of slash pines. 18118
Control of the elm leaf beetle in Arizona. 18128
- TREES**
Additional information on the pathogenicity of *Scleroderma lagerbergii*. 18065
Improved technique to control shot hole borers and bark beetles. 18106
Attempts at combatting oystershell scale, *Lepidosaphes ulmi* (L.), on apple trees in orchards of Quebec. 18109
Dispersal patterns of *Monilinia laxa* spores in peach, prune, apricot, and almond trees during early spring. (Abstract). 18435
- TREMATODA**
Transmission of salmon poisoning disease to dogs by *Nanophyetus salmincola* eggs. 18301
The connection between sunspot cycles and mass mortality among vertebrates and non-vertebrates due to parasitic activity. 18327
A new technique for the recovery of *Fasciola gigantica* eggs from cattle faeces. 18354
Lesions caused by the hepatic trematode, *Metrochis conjunctus*, Cobbold, 1860; A comparative study in *Carnivora*. 18369
On the Metacercaria of *Prosthogonimus putschkowskii* in *Sympetrum decoloratum* (Odonata: insecta) with observations on its development in chicks. 18370
- TRIAZINES**
Heterocyclically substituted monohalogeno-1,3,5-triazines. Patent 3,407,201. 18490
- TRIBOLIUM CASTANEUM**
Studies on hydrogen phosphide against the red flour beetle in a column of paddy. 18113
- TRIBOLIUM CONFUSUM**
The tolerance of imported commodities to fumigation with methyl bromide. 18112
Experimental infection of gnotobiotic *Tenebrio molitor* and white rats with *Hymenolepis diminuta* (Cestoda: Cyclophyllidae). 18363
- TRICHINELLA SPIRALIS**
Prevalence of *Trichinella spiralis* in wild animals on two Illinois swine farms. 18282
Relationship between infecting dose, muscle parasitism, and antibody response in experimental trichinosis in rabbits. 18329
Changes in the efficacy of three anthelmintics during the maturation of a nematode (*Trichinella spiralis*). 18357
- Helminths as vehicles and synergists of microbial infections. 18376
- TRICHINOSIS**
Relationship between infecting dose, muscle parasitism, and antibody response in experimental trichinosis in rabbits. 18329
Experimental studies in mice on the therapy of trichinellosis (Thiabendazole, Neguvon, cortisone, azulen, sera). 18366
- TRICHODORUS**
Control of endo- and ecto-parasitic nematodes in turf by hot-water treatments. 18139
- TRICHODORUS CHRISTIEI**
Electron microscopic studies of the nervous system of *Trichodorus christiei* (Abstract). 18447
- TRICHODORUS VIRULIFERUS**
The host-parasite relations and ecology of *Trichodorus viruliferus* on apple roots, as observed from an underground laboratory. 18145
- TRICHOPLUSIA NI**
Effects of mold inhibitors in larval diet on the biology of the cabbage looper. 17847
A possible marker for european corn borer moths. 17882
- TRICHOSTRONGYLOSIS**
Parasitic development of *Obeliscoides cuniculi* in rabbits. 18375
- TRICHOSTRONGYLUS**
Nematodiasis in Louisiana dairy cattle. Impact of host nutrition upon experimental ostertagiasis in the bovine. 18212
- TRICHOSTRONGYLUS COLUBRIFORMIS**
Effect of desiccation on survival of the free-living stages of *Trichostrongylus colubriformis*. 18353
- TRIFLURALIN**
Preplanting treatments for weed control in Connecticut shadegrown tobacco. 18157
Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. Trifluralin. 18398
- TRISTEZA (CITRUS)**
The presence of tristeza virus in certain species of citrus in Cyprus. 18042
- TRIZONE**
Factors affecting the infection of black spruce (*Picea mariana* Mill.) transplants by *Cylindrocladium scoparium*. 18056
- TRYCOPHYTON**
An outbreak of ringworm among cattle in Shimane. 18252
- TRYPAN BLUE**
Vital staining of insect eggs by incorporation of trypan blue. 17878
- TRYPTOPHAN**
Physiological genetics of melanotic tumors in *Drosophila melanogaster*. V. Amino acid metabolism and tumor formation in the tu bw; st su-tu strain. 17902
- TULAREMIA**
Gamaisid mites (Gamaisoidea) as vectors of the disease causative agents. 17915
- TUNNELS**
On Diptera in small mammal burrows in northern Europe and southern Spain. 17750

- TURF**
Carbon dioxide-powered plot sprayer for turf-grass disease control fungicide application. 17969
- TURKEYS**
Mycoplasma meleagridis ('N' strain mycoplasma PPLO): Relationship of air sac lesions and isolations in day old turkeys (Meleagridis Gallopavo). 18211
Liver granulomas of turkeys caustive agents and mechanism of infection. 18294
Northern fowl mite control on mature turkeys on range. 18350
- TURNIPS**
Spermidine, the major polyamine component of turnip yellow mosaic virus. (Abstract). 17946
- TYLENCHORHYNCHUS**
Control of endo- and ecto-parasitic nematodes in turf by hot-water treatments. 18139
- TYLENCHULUS SEMIPENETRANS**
The influence of an organic soil amendment on infectivity and reproduction of Tylenchulus semipenetrans on two citrus rootstocks. 18144
- TYLENCHUS EMARGINATUS**
Parasitism of Tylenchus emarginatus on conifer seedling roots and some observations on the biology of the nematode. 18150
- TYLOSE**
A mechanism of enhanced resistance to Ceratocystis ulmi in American elms treated with sodium trichlorophenylacetate. 17956
- TYROSINE**
Results concerning humoral immunity of Pyrrhocoris apterus I. and Galleria mellonella F. 17842
Tyrosine metabolism and its hormonal control after eclosion in the adult fleshfly Sarcophaga bullata Parker (Diptera: Sarcophagidae). 17879
- ULMUS**
A new genus and two new species of mirid bugs (Heteroptera, Miridae) from the eastern regions of the USSR. 17755
A mechanism of enhanced resistance to Ceratocystis ulmi in American elms treated with sodium trichlorophenylacetate. 17956
Effect of control programs on development of epidemics of Dutch elm disease. (Abstract). 18034
Control of the elm leaf beetle in Arizona. 18128
- ULMUS AMERICANA**
Two new hardwood hosts of Fomes annosus. 17930
- ULTRAVIOLET RAYS**
The effect of ultra-violet radiation on the invasion, survival and fertility of larvae of Heterodera rostochiensis. 18136
Does the agent of scrapie replicate without nucleic acid. 18205
- UREA**
Effects of urease inhibitors on sheep fed diets containing urea. 18182
- UREASE**
Effects of urease inhibitors on sheep fed diets containing urea. 18182
- UREDIOPORES**
The summer biology of Puccinia striiformis in southeastern Washington. I. Induction of infection during the summer. 18072
- UREDOSPORES**
The frequency of penetration of epidermal strips and intact wheat leaves by Puccinia graminis f. sp. tritici. 18060
- URIDINE**
Nucleoprotein synthesis during metamorphosis in Drosophila virilis. 17872
- URINE**
Levels of 5 beta-pregnan-3 alpha, 6 alpha-diol-20-one in urine and its relationship to other metabolites of progesterone in urine of the non-pregnant domestic sow. 18189
Administration of glycuronic acid and its excretion in dairy cows. 18333
Isolation and purification of metabolites found in the urine of male rats fed aldrin and dieldrin. 18379
- UROMYCES PHASEOLI**
Effect of Uromyces phaseoli on the water relations of primary bean leaves. (Abstract). 17977
- VACCINES**
Results concerning humoral immunity of Pyrrhocoris apterus I. and Galleria mellonella F. 17842
Properties of Aujeszky's disease virus strains isolated from swine pneumonia cases. 18215
One-year immunity in dogs vaccinated with high egg-passage rabies virus grown on established dog kidney cell line. 18222
The experimental production of a formalin-killed Japanese encephalitis virus vaccine from porcine kidney cell cultures. 18260
The use of polyvalent inactivated vaccine therapeutically against equine influenza. 18278
Immunization of foxes with inactivated virus rabies vaccine. 18315
A method for evaluation of vaccines containing pasteurilla multocida. 18380
- VAPORS**
Infrared studies of ethylene chlorohydrin. 18486
- VASCULAR SYSTEM (PLANTS)**
Pathogenicity of some blue-stain fungi in the genus Ceratocystis. (Abstract). 17945
- VEGETABLES**
Disease involvement of nonalliacaceous hosts by Pyrenochaeta terrestris. (Abstract). 17947
Vegetable crops III. Cucumbers, watermelons, cantaloupes, squash. 18168
Comparative Cs-137 content of agricultural crops grown in a contaminated soil. 18389
- VELOCITY**
Spread of the boll weevil by drainage water and air currents. 17824
The statistical description of a spray in terms of drop velocity, size, and position. 18488
- VENEZUELAN EQUINE ENCEPHALOMYELITIS**
Lipids of Venezuelan equine encephalomyelitis virus and their relationship to the lipids of the host. 18256
- VENTURIA INAEQUALIS**
Reducing spring discharge of Venturia inaequalis ascospores by composting overwintering leaves. 17929
- Studies of the resistance of local apple varieties to scab (Venturia inaequalis (cke.) Wint.) under climatic conditions of Central Anatolia. 18073
- VERTEBRATES**
Pesticides and pollution. SB959.0U4. 17863
- VERTICILLIUM ALBO-ATRUM**
The effect of carbon source, carbon to nitrogen ratios, and organic amendments on survival of propagules of Verticillium albo-atrum in soil. 17921
Mitotic recombination in conidiophores of verticillium alboatrum. 17922
Morphology and longevity of Verticillium albo-atrum in cotton leaves. (Abstract). 17957
Distribution in Ontario of Verticillium strains causing wilt of potatoes. 17963
- VERTICILLIUM DAHLIAE**
Thread worms in the rhizosphere of the normal cotton and of that infected with the verticillous cotton wilt. 18149
- VESICULAR STOMATITIS VIRUS**
Electron microscopic studies on the development of vesicular stomatitis virus. 18236
- VETERINARY MEDICINE**
Influence of statolon-induced interferon on rabies virus infection in mice. 18322
The organization and activities of the Bureau of Veterinary Medicine, Food and Drug Administration. 18496
- VIBRIO BUBULUS**
A comparative study of cell wall glycopeptide structure of some bovine vibrios. 18247
Biochemical and serologic characteristics of Vibrio isolants from cattle. 18337
- VIBRIO FETUS**
A comparative study of cell wall glycopeptide structure of some bovine vibrios. 18247
Biochemical and serologic characteristics of Vibrio isolants from cattle. 18337
- VIRUS DISEASES (ANIMALS)**
Investigations on the Heliothis nuclear polyhedrosis virus and its development as a biological control agent. 17779
Growth of arboviruses in monolayers from subcultured mosquito embryo cells. 17870
Studies of the epidemiology of arthropod-borne virus infections at Mitchell River Mission, Cape York Peninsula, north Queensland. II. Arbovirus infections of mosquitoes, man, and domestic fowls, 1963-1966. 17910
Further studies on the use of ERA rabies vaccine in domestic animals. 18201
Avian adeno-like viruses- Characterization and comparison of seven isolates. 18224
Effects of attenuated hog cholera virus in pregnant swine at various stages of gestation. 18230
Hog cholera: Safety and protection studies with photodynamically inactivated hog cholera virus. 18232
Characterization studies on feline panleucopenia virus. (with). II. Pathogenesis in the host. 18233
Isolation and characterization of three plaque-type clones of the hickman strain of newcastle disease virus. 18235

SUBJECT INDEX

VIRUS DISEASES (INSECTS)

Behavior of equine infectious anemia virus in cell culture and development of a diagnostic test for the disease. 18240

Characterization of bovine viral diarrhoea viruses by their interactions with susceptible host cells. 18243

The response of various tissues in neonate calves to bovine papilloma virus (BPV). 18251

Lipids of Venezuelan equine encephalomyelitis virus and their relationship to the lipids of the host. 18256

An enzootic of pseudorabies in swine in California. 18257

Degradation of cellular ribonucleic acid in Newcastle disease virus infected cells. 18258

Duck plague. 18263

California-encephalitis-group viruses in Florida rabbits: Report of experimental and sentinel studies. 18265

Increased incidence of avian leukosis in response to excess vitamin A. 18280

Effects of genetic cellular resistance on cell transformation and virus replication in chicken hematopoietic cell cultures infected with avian myeloblastosis virus (BAI-0A). 18295

Biochemical and biophysical properties of canine distemper virus. 18306

Enzootic rabies in rodents in Thailand. 18320

Eight feline viruses: An electron microscopic study. 18324

Electron microscopy of bovine papilloma and deer fibroma viruses. 18328

Experimental bluetongue disease in white-tailed deer. 18336

Some studies on the pathogenesis and epizootiology of epizootic hemorrhagic disease of deer. 18340

VIRUS DISEASES (INSECTS)

The multiplication of Middelburgs and 1 plaque viruses in *Aedes aegypti* mosquitoes. 17735

VIRUS DISEASES (PLANTS)

Abstracts of papers accepted for presentation at the sixtieth annual meeting of The American Phytopathological Society, Columbus, Ohio, 2-6 September 1968. 17938

Spermidine, the major polyamine component of turnip yellow mosaic virus. (Abstract). 17946

Carbohydrate distribution in grafted potato plants representing two types of resistance to virus X. 17948

Mechanism of increased root rot in virus-infected peas. 17950

Relation of boron to cherry rosette disease in Oregon, and the possible implication of a virus. 17954

Potato spindle tuber virus: in situ sensitivity of the infectious agent to ribonuclease. (Abstract). 17974

Local lesion development in Turkish tobacco leaves heated after inoculation with tobacco mosaic virus. (Abstract). 17983

Investigations of the mechanism of the necrotic response of *Nicotiana tabacum* L. var. Samsun NN to infection with tobacco mosaic virus. 17985

Ultrastructure of *Zea mays* leaf cells infected with Johnson grass strain of sugarcane mosaic virus. (Abstract). 17986

Relationship of ethylene to curly top symptoms. (Abstract). 17988

Effects of barley stripe mosaic virus infection on the respiration of barley leaves. (Abstract). 17990

The effect of polyploidy on plant virus replication and control. 17991

High-temperature-induced insoluble coat protein in tobacco mosaic virus (TMV)-infected plants. (Abstract). 17993

An investigation of the tobacco mosaic virus multiplication process and its effect on the metabolism of the host. 17998

Exocortis in Ortanique orange. 18001

Studies on the effects of Hg(II) and sucrose on the mechanical transmission of tobacco mosaic virus ribonucleic acid to pinto bean (*Phaseolus vulgaris* L.). 18011

Resistance breakdown in maize to maize dwarf mosaic virus after treatment with atrazine. (Abstract). 18027

A study on auxin and chlorogenic acid in leaf-roll resistant and susceptible potato varieties. 18032

Identification of strains of watermelon mosaic virus by serology and other characteristics. (Abstract). 18037

Transmission of a leafhopper-borne virus from naturally infected *Poa annua* in Czechoslovakia. 18039

The presence of tristeza virus in certain species of citrus in Cyprus. 18042

Annals of the Phytopathological Society of Japan. 18044

Cytochrome oxidase and mitochondrial protein in extracts of leaves of *Nicotiana glutinosa* L. Infected with tobacco mosaic virus. 18045

Tomato bushy stunt virus on tomato crops in Argentina. 18047

Cytokinin effect of benzyladenine: Increase of nucleic acid and protein synthesis in bean leaves. 18048

Tolerance to barley yellow dwarf in winter oats. 18050

Occurrence of Agrophron mosaic virus in Montana. 18058

Cytomorphological features of TMV-INFECTED tobacco callus cells in tissue culture. 18063

Alterations in the auxin levels of resistant and susceptible hosts induced by the curly top virus. 18066

Cross protection between a plant virus and potato psyllid yellows. 18067

Effects of nematode extraction method, soil mixture, and nematode numbers on the transmission of tobacco ringspot virus by *Xiphinema americanum*. 18070

Effect of MCPA on lettuce pre-inoculated with lettuce mosaic virus. 18075

Aluminum foil and white polyethylene mulches to repel aphids and control watermelon mosaic. 18083

Natural acquisition compared with mechanical inoculation of six-spotted leafhoppers for transmission of the oat blue dwarf virus. (Abstract). 18085

Aphid vectors of barley yellow dwarf virus in blacklight traps in eastern United States. 18089

The use of menazon seed dressing to decrease spread of virus yellows in sugar-beet root crops. 18098

Isolation and electron microscopy of potato leafroll virus from plants. 18102

A new mosaic disease of brinjal (*Solanum melongena* L.). 18116

Location of unique sequences in tobacco mosaic virus ribonucleic acid. 18457

VIRUS X (POTATOES)

Carbohydrate distribution in grafted potato plants representing two types of resistance to virus X. 17948

VIRUSES

A study of the nuclear polyhedrosis virus on the beet armyworm, *Spodoptera exigua* (Hubner), with emphasis on stability, pathogenicity and histopathology. 17837

Results concerning humoral immunity of *Pyrrhocoris apterus* L. and *Galleria mellonella* F. 17842

Influence of a virus disease on the hemocytic anti-cryptogamic reactions in insects. 17893

Tobacco necrosis virus and its satellite virus. 18007

Introducing and establishing the noninclusion virus of the citrus red mite in citrus groves. 18117

A collective outbreak of transmissible gastroenteritis in swine. III. Isolation of a virus with cytopathogenic effect and its properties. 18241

Stained monolayer test: a color test in disposable plastic trays for titrating transmissible gastroenteritis virus and neutralizing antibodies. 18343

Microbiology. Gastrointestinal outbreaks. 18392

VISCERA

Mercury content in feathers of Swedish birds from the past 100 years. 18198

VITAMIN A

Influence of nitrite and hydroxylamine on performance and vitamin A and carotene metabolism of ruminants. 18183

Influence of dietary vitamin A on cholesterol metabolism of chickens. 18185

Increased incidence of avian leukosis in response to excess vitamin A. 18280

The utilization of vitamin A and carotene by ruminants. 1. Vitamin A potency of carotenes in corn silage fed to lambs. 2. The effect of time and route of administration of vitamin A on liver vitamin A storage by steers. 3. The effect of route of administration of vitamin A on blood serum and liver vitamin A concentrations in steers at subsequent time intervals. 18281

VITAMIN D3

Actions of vitamin D3 and sex hormones on calcium metabolism of bone in birds, particularly in hens. 18226

VITAMIN E

Effects of selenium and vitamin E on nutritional muscular dystrophy in lambs. 18242

- VITAMINS**
Effect of ration modifications on aflatoxicosis in the rat. 18382
- VOLUMETRIC ANALYSIS**
Stained monolayer test: a color test in disposable plastic trays for titrating transmissible gastroenteritis virus and neutralizing antibodies. 18343
- WASTE DISPOSAL**
Alberta, 255,000 square miles, free of rats. 18175
- WATER**
Bionomics of the mosquito *Anopheles franciscanus* McCracken in California. 17783
Spread of the boll weevil by drainage water and air currents. 17824
Systemic-chemical paints for the control of *Cytospora* canker disease in prune trees. 17996
A bioassay technique for screening feeding stimulants for larvae of tobacco budworm. 18096
Ecology of *Clostridium botulinum* type E. 18216
Water, electrolyte, and acid-base alterations in experimental canine leptospirosis. 18244
Effects on microfauna - freshwater. 18394
Macroinvertebrates. Fresh water. 18402
Anaerobic processes. Microbiology and mechanism. 18405
Nutritional requirements of a tomato tissue culture: Growth promoting factors from peas. 18478
- WATER ANALYSIS**
Effects on groundwater. Municipal sources. 18390
Water pollution. Effects of pollution on fish life. General aspects of water pollution biology. 18395
Toxic effects of odorous trace organics. 18417
- WATER POLLUTION**
Pesticides and pollution. SB959.0U4. 17863
Detergents. 18387
Effects on groundwater. Municipal sources. 18390
Microbiology. Gastrointestinal outbreaks. 18392
Effects on microfauna - freshwater. 18394
Water pollution. Effects of pollution on fish life. General aspects of water pollution biology. 18395
Macroinvertebrates. Fresh water. 18402
Agricultural (livestock) wastes. 18404
Anaerobic processes. Microbiology and mechanism. 18405
Oxygen sag and stream self-purification. 18407
Toxic effects of odorous trace organics. 18417
- WATER SUPPLY**
Effects on groundwater. Municipal sources. 18390
- WATER TREATMENT**
Detergents. 18387
Oxygen sag and stream self-purification. 18407
- WATERMELONS**
Identification of strains of watermelon mosaic virus by serology and other characteristics. (Abstract). 18037
Vegetable crops III. Cucumbers, watermelons, cantaloupes, squash. 18168
- WEANING**
Response of early-weaned pigs to amino acid supplementation of corn diets. 18391
- WEATHER**
Winter oviposition by the alfalfa weevil in Virginia. 17900
Studies of the epidemiology of arthropod-borne virus infections at Mitchell River mission, Cape York Peninsula, north Queensland. I. Mosquito collections, 1963-1966. 17914
Factors influencing aflatoxin accumulation in peanut kernels and the associated mycoflora. 18043
Effects of early-, mid-, and late-season infestations of two-spotted spider mites on the yield of cotton. 18094
Survival of *Rhopalosiphum padi* in stored grain during cold weather. 18097
Loss of phorate from a granular formulation applied in the soil. 18110
The connection between sunspot cycles and mass mortality among vertebrates and non-vertebrates due to parasitic activity. 18327
- WEED BURNERS**
Engineering and biological aspects of designing and using a selective flame weeder. 18493
- WEED CONTROL**
Preplanting treatments for weed control in Connecticut shadegrown tobacco. 18157
Evaluation of weed control treatments in field-grown tobacco. 18158
The growth, development and control of common ragweed. 18160
Growth, development and control of wild radish. 18162
Fencerow weed control made easy. 18165
Extermination of *Eichhornia azurea* Kunth, Aguape de cordao, on the Ribeira river by means of herbicide applications. 18166
Forage crops, small grains. 18167
Vegetable crops III. Cucumbers, watermelons, cantaloupes, squash. 18168
Aquatic weeds. 18170
Tobacco. 18171
Forestry. 18172
Vegetable crops. IV. Beans, sweet corn, tomatoes, rhubarb. 18173
Engineering and biological aspects of designing and using a selective flame weeder. 18493
- WEEDS**
Evaluation of weed control treatments in field-grown tobacco. 18158
Weeds in agronomic crops. Field corn, soybeans. 18159
- On the dispersal of the bulbs of *Oxalis cernua* Thunb. by mole-rats (*Spalax ehrenbergi* Nehring). 18163
Ornamentals. 18164
Vegetable crops III. Cucumbers, watermelons, cantaloupes, squash. 18168
Tobacco. 18171
Herbaceous annual and perennial weeds. 18174
- WHEAT**
Effect of seed extract of *Trifolium subterraneum* on germination and seedling growth rate. 17920
Relation of uredial and urediospore counts to epiphytic development of wheat rusts and the value of the counts in predicting disease. (Abstract). 17962
Premature death of adult rusted wheat plants in relation to carbon dioxide evolution by root systems. 17964
Seedling resistance to powdery mildew of Purdue 5752Cl-7-5-1 wheat derived from *Triticum timopheevi*. (Abstract). 17987
Protein and enzyme changes in wheat leaves following infection with *Puccinia recondita*. 18005
Stem rust infection and development in artificially inoculated fields of wheat at Hays, Kans., and its effect on yield, 1960 to 1965. (Abstract). 18022
Environmental effects and transfer events during primary infection of wheat by *Erysiphe graminis*. 18038
Stand loss of small grains in Florida. 18057
Occurrence of *Agrophron* mosaic virus in Montana. 18058
The frequency of penetration of epidermal strips and intact wheat leaves by *Puccinia graminis* f. sp. tritici. 18060
On light-sensitivity in germinating urediospores of wheat brown rust. 18080
Further evaluation of acaricides for brown wheat mite control on winter wheat in Kansas, 1963-65. 18091
Peculiarities of development and harmful activity of the Hessian fly (*Mayetiola destructor* Say.) under conditions of irrigation. 18119
Effect of variety and fumigation on nematode populations in oats, wheat, and rye. 18147
Teliospore germination of *Puccinia recondita* f. sp. tritici (Abstract). 18452
Gel permeation cleanup for malathion in wheat, using a non-ionic, cross-linked polystyrene polymer. 18482
- WILDLIFE**
Lesions caused by the hepatic trematode, *Metorchis conjunctus*, Cobbold, 1860; A comparative study in *Carnivora*. 18369
Toxic blue-green algae in Saskatchewan. 18414
- WILDLIFE CONSERVATION**
Preventing fish and wildlife losses. 18385
- WILDLIFE DISEASES**
Prevalence of *Trichinella spiralis* in wild animals on two Illinois swine farms. 18282

SUBJECT INDEX

WILT (COTTON)

Swedish studies of game that had been found dead as well as specimens that had been shot.

18411

WILT (COTTON)

Thread worms in the rhizosphere of the normal cotton and of that infected with the verticillous cotton wilt.

18149

WILT (POTATOES)

Distribution in Ontario of *Verticillium* strains causing wilt of potatoes.

17963

WILT (TOBACCO)

Induced resistance to bacterial wilt in susceptible tobacco cuttings pretreated with avirulent mutants of *Pseudomonas*. (Abstract).

18029

WIND

Costelytra zealandica (White) sex attraction.

17845

WINGS (INSECTS)

Mechanical and electrical activity in the indirect flight muscles of the honey bee.

17820

Role of host plant in production of winged forms by a green strain of pea aphid *Acyrtosiphon pisum*.

18120

WITCHES' BROOM (CONIFERAE)

Eastern dwarf mistletoe on jack pine in Manitoba.

17926

WOOD DECAY

Patch canker of *Hevea brasiliensis* caused by *Phytophthora palmivora*.

17967

Role of nitrogen in wood deterioration. VI. Mycelial fractions and model nitrogen compounds as substrates for growth of *Polyporus versicolor* and other wood-destroying and wood-inhabiting fungi.

18018

WOOD DESTROYING FUNGI

Role of nitrogen in wood deterioration. VI. Mycelial fractions and model nitrogen compounds as substrates for growth of *Polyporus versicolor* and other wood-destroying and wood-inhabiting fungi.

18018

An arylsulfatase in the wood rotting basidiomycete, *Fomes geotropus*.

18035

X-RAYS

Food intake and growth of burro foals after 250 roentgens of cobalt-60 whole-body gamma irradiation.

18271

XANTHINE DEHYDROGENASE

Polygenic control of aldehyde oxidase and xanthine dehydrogenase in *Drosophila*.

17807

XANTHOMONAS

Identification of *Xanthomonas* species by acrylamide-gel disc electrophoresis of soluble bacterial

proteins. (Abstract).

18439

Disc electrophoresis of sonic extracts of five phytopathogenic bacteria. (Abstract).

18444

XANTHOMONAS MALVACEARUM

Race buildup of *Xanthomonas malvacearum* on cotton in southeast Missouri.

17928

Effectiveness of specific genes and gene combinations in conferring resistance to races of *Xanthomonas malvacearum* in Upland cotton. (Abstract).

17978

XANTHOMONAS VESICATORIA

Effect of *Xanthomonas vesicatoria* on loss of electrolytes from leaves of *Capsicum annuum*.

17970

XIPHENEMA AMERICANUM

Electron microscope studies of some cephalic structures of *Xiphinema americanum*.

18142

XIPHINEMA AMERICANUM

Effects of nematode extraction method, soil mixture, and nematode numbers on the transmission of tobacco ringspot virus by *Xiphinema americanum*.

18070

Plant-parasitic nematodes in grape and raspberry soils of Ontario and a comparison of extraction techniques.

18153

XYLEBORUS FERRUGINEUS

Circadian emergence rhythm of a tropical scolytid, *Xyleborus ferrugineus*.

17767

XYLEM

Inorganic composition and microscopy of citrus roots grown under several copper and soil amendment conditions.

18428

YELLOW DWARF (BARLEY)

Tolerance to barley yellow dwarf in winter oats.

18050

Aphid vectors of barley yellow dwarf virus in blacklight traps in eastern United States.

18089

YELLOW DWARF (OATS)

Tolerance to barley yellow dwarf in winter oats.

18050

YELLOW MOSAIC (TURNIPS)

Spermidine, the major polyamine component of turnip yellow mosaic virus. (Abstract).

17946

YELLOW SUGAR BEETS

The use of menazon seed dressing to decrease spread of virus yellows in sugar-beet root crops.

18098

ZINC

The effect of decomposing organic matter on zinc level in soil and plants.

18061

Relationships between zinc nutrition and alkaline phosphatase activity in the chick.

18220

A physiologic-genetic study of the differential response of navy beans (*Phaseolus vulgaris* L.) to zinc.

18466

ZOOGEOGRAPHY

Notes on the chorology and ecology of Araneidae from the Alban Hills (Araneae).

17741

A revision of the oriental species of *Palexorista* Townsend (Diptera: Tachinidae, Sturmiini).

17744

New species of *Culex* (Melanoconion).

17756

Fleas (Siphonaptera) new to Norway.

17760

Habitat selection by *Lipara lucens* Mg. (Diptera, Chloropidae) and its survival value.

17761

On the distribution of *Ixodes angustus* Neum. (Ixodidae).

17768

A preliminary report of the mosquitoes in the Gilgit Agency area.

17772

Contribution to the study of the genera *Stizocera* Serv., 1834. Brazilian species (Coleoptera, Cerambycidae).

17774

A prodrome of the genus *Orthopodomyia* (Diptera, Culicidae).

17775

Siphona kangwayei n. sp., a blood sucking fly from Uganda (Diptera: Muscidae).

17776

The leaf cutting ant, *Atta capiguara*, curse of the pastures.

17780

Studies on the morphology and biology of *Lecanium fletcheri* Ckll. (Homoptera, Coccoidea) and related species.

17813

Larch sawfly survival in relation to water levels and microtopography in tamarak bogs.

17839

On the *Sphodromantis* of the species *viridis* from northwest Africa.

17849

Influence of population level and trap spacing on capture of tobacco horn-worm moths in blacklight traps with virgin females.

17861

Western corn rootworm egg distribution and adult emergence under two corn tillage systems.

18111

Introducing and establishing the noninclusion virus of the citrus red mite in citrus groves.

18117

Egg distribution as a factor in suppressing the green peach aphid by pruning.

18122

The barley root-knot nematode in Illinois.

18135

BIOGRAPHICAL INDEX

Abelseth, M K New York State Health Dept.; Division of Laboratories and Research; Laboratories for Veterinary Sciences 18201	Aronson, S J North Dakota State University, Fargo 17941	Belli, L B Texas A and M University 18210
Abraham, P D Plant Protection Limited, Berks, England; Jealott's Hill Research Station 18421	Ashrafuzzaman, M H Texas A and M University 17942	Benjaminson, M A New York University, N. Y. 17787
Adlerz, W C Florida University; Institute of Food and Agricultural Sciences 18083	Atkins, M D Dept. of Forestry and Rural Development, Victoria, British; Columbia; Forest Research Laboratory 18084	Benson, A P Michigan State University, East Lansing; Dept. of Botany and Plant Pathology 17948
Ahmed, H London University, England; Queen Elizabeth College; Dept. of Biology 17777	Awad, T M Mississippi State University 18386	Benson, D M Colorado State University, Fort Collins 17949
Ahrens, J F Connecticut Agricultural Experiment Station, Windsor; Valley Laboratory 18157	Babcock, M B Virginia University, Charlottesville 17782	Beute, M K Michigan State University 17950
Aker, N L Kellogg Company, Battle Creek, Michigan; Quilaity Assurance Division 18482	Bacic, B Poljoprivredni Fakultet, Novi Sad, Yugoslavia 18409	Bhallia, H S Wisconsin University, Madison 17951
Albrecht, J E North Carolina State University, Raleigh 18179	Baerg, D C California University, Davis 17783	Biesbrock, J A Georgia University, Athens 17952
Alexander, D C Canada Dept. of Agriculture, Hull, Quebec; Animal Diseases Research Institute; Animal Pathology Division; Health of Animals Branch 18203	Bagga, H S Delta Branch Experiment Station, Stoneville, Miss. 17943	Bigland, C H Saskatchewan University, Saskatoon, Canada; Western College of Veterinary Medicine 18211
Alexiev, A N USSR Ministry of Health, Moscow; Central Research Disinfection Institute 17778	Bailey, C L Oklahoma State University, Stillwater 17784	Bilkovich, F R Wisconsin University, Madison 18212
Alicata, P Catania University, Italy; Istituto di Zoologia 17737	Bajaj, Y P S Michigan State University, East Lansing 18422	Binniger, C E Washington State University, Pullman; College of Veterinary Medicine; Dept. of Pathology 18213
Allen, G E Mississippi State University 17779	Bakry, N California University, Riverside; Dept. of Entomology 17785	Birchfield, W Louisiana State University, Baton Rouge; U. S. Dept. of Agriculture and Dept. of Plant Pathology; Agricultural Research Service; Crops Research Division 17918
Allred, J N U. S. Dept. of Agriculture, Hyattsville, Maryland; Agricultural Research Service; Animal Health Division and Biometrical Services Division 18204	Balachowsky, A S Museum national d'Histoire naturelle, Paris, France; Laboratoire d'Entomologie generale Uet appliquee 17740	Bitakaramire, P K Nairobi University College, Nairobi, Kenya; Faculty of Veterinary Science 18354
Alper, T Hammersmith Hospital, London; M. R. C. Experimental Radiopathology; Research Unit 18205	Ball, L Colorado State University, Fort Collins; College of Veterinary Medicine; Dept. of Pathology 18208	Black, H S Sam Houston State College, Huntsville, Tex. 18427
Ananthakrishnan, T N Loyola College, Madras, India; Dept. of Zoology 17738	Banerjee, A K Laboratory of the Plant Pathologist to Government, India 17917	Black, L L West Virginia University, Morgantown; Dept. of Plant Pathology and Bacteriology 17953
Andersen, F L Brigham Young University, Provo, Utah; Dept. of Zoology and Entomology 18353	Banihashemi, Z Michigan State University 17944	Blenden, D C Missouri University, Columbia; School of Veterinary Medicine; Section of Veterinary Public Health 18214
Anderson, J D Oregon State University, Corvallis 17916	Bantari, E E Minnesota University, St. Paul 18085	Blumenfield, M Case Western Reserve University 17788
Anderson, W W Rockefeller University, N. Y. 17781	Barba, R C Hawaii University 18423	Bodon, L Hungarian Academy of Sciences, Budapest; Veterinary Medical Research Institute 18215
Ancllis, A U. S. Army Natick Laboratories, Natick, Mass.; Quality Assurance Office; Food Laboratory; Microbiology Division 18383	Barber, D A ARC Radiobiological Laboratory, Letcombe Regis, Wantage 18424	Bolwyn, B Oregon State University, Corvallis 17954
Aragaki, M Hawaii University, Honolulu 17939	Barnes, D M Minnesota University, St. Paul; College of Veterinary Medicine; Dept. of Veterinary Pathology and Parasitology 18209	Borecki, Z Missouri University, Columbia 17955
Ardrey, W B Idaho University, Moscow; Dept. of Veterinary and Poultry Sciences 18206	Barry, C K Scripps Institution of Oceanography, La Jolla, Calif. 17786	Borg, K National Veterinary Institute, Stockholm 18411
Arguelles-Rasa, E Philippine Union College, Manila; Dept. of Biology 17940	Basham, H G North Carolina State University, Raleigh 17945	Bott, T L Wisconsin University 18216
Armstrong, C H Purdue University, Lafayette, Indiana; School of Veterinary Science and Medicine; Dept. of Microbiology, Pathology and Public Health 18207	Bates, J J Missouri University, Columbia 18425	Bottrell, D G South Plains Research and Extension Center, Lubbock, Texas; Texas Agricultural Experiment Station 17789
Arnoldi, K V UdSSR Akademie der Wissenschaften, Moscow; Institut der Evolutionare Morphologie und Okologie der Ti 17739	Bedding, R A Sirex Biological Control Unit, Silwood Park, Ascot, Berks.; England 17731	Bowman, M C U. S. Dept. of Agriculture, Tifton, Ga.; Agricultural Research Service; Entomology Research Division 18483
	Beer, S V California University, Davis 17946	Bowne, J G U. S. Dept. of Agriculture, Denver, Colorado; Agricultural Research Service; Animal Disease and Parasite Research Division; Animal Disease Research Laboratory 18217
	Beevers, L Illinois University, Urbana; Dept. of Horticulture 18426	
	Beliram, R Iowa State University, Ames 17947	

Bradley, J R

Bradley, J R
North Carolina State University, Raleigh; Dept. of Entomology 17790

Brams, E A
Florida University, Gainesville 18428

Braten, T
Oslo University, Norway; Zoological Laboratory 18355

Braten, T
Oslo University, Norway; Zoological Laboratory 18356

Braund, D G
Michigan State University 18218

Brener, W D
Cornell University, Ithaca, New York; Dept. of Plant Pathology 17956

Brian, M V
Natural Environment Research Council; Furzebrook Research Station, Wareham, Dorset 17791

Brickey, P M
Food and Drug Administration, Washington, D. C.; Division of Microbiology 17792

Brignoli, P M
Roma Universita, Italy; Istituto di Zoologia 17741

Brinkerhoff, L A
U. S. Dept. of Agriculture, Stillwater, Okla.; Agricultural Research Service 17957

Bris, E J
Washington State University 18219

Britton, W M
North Carolina State University, Raleigh 18220

Brodey, R S
University of Pennsylvania, Philadelphia; School of Veterinary Medicine 18221

Brown, A L
Norden Laboratories, Inc., Lincoln, Nebraska; Dept. of Biological Research and Development 18222

Brown, D H
U. S. Dept. of Agriculture, Missoula, Mont.; Forest Service 17958

Brown, D H
New York State University, Syracuse; College of Forestry 17959

Brown, G E
Florida Citrus Commission, Lake Alfred 17960

Brown, R C
Oak Ridge National Laboratory, Oak Ridge, Tennessee; Biology Division 18223

Brown, R H J
Cambridge University, Mass.; Dept. of Zoology 17793

Brown, T S Jr.
Pennsylvania State University, University Park 18429

Brune, D
A B atomenergi, Studsvik 18484

Bryant, W E
Missouri University, Columbia 18131

Brzeski, M W
Instytut Warzywnictwa, Skierniewice, Poland 18132

Bull, T A
Colonial Sugar Refining Company, Toowong, Australia; David North Plant Research Center 18430

Burke, C N
Connecticut University, Storrs; Dept. of Animal Diseases 18224

Burkowicz, A
Missouri University, Columbia 17961

Burleigh, J R
U. S. Dept. of Agriculture, Manhattan, Kans.; Agricultural Research Service 17962

Burnet, B
University of Sheffield, England; Dept. of Genetics 17902

Burrows, G E
Washington State University, Pullman, Washington; School of Veterinary Medicine; Dept. of Veterinary Clinical Medicine and Surgery 18225

Burton, R P
Virginia Polytechnic Institute, Blacksburg; Dept. of Entomology 17794

Busch, L V
University of Guelph, Canada; Dept. of Botany 17963

Bushnell, W R
U. S. Dept. of Agriculture; Agricultural Research Service; Crops Research Division 17964

Bussell, J
California University, Davis 18431

Byrde, R J W
Bristol University, Great Britain; Long Ashton Research Station 17965

Callow, L L
Animal Research Institute Yeerongpilly, Brisbane, Australia; Queensland Dept. of Primary Industries 17795

Campbell, W C
Merck Institute for Therapeutic Research, Rahway, N. J. 18357

Carley, H E
Minnesota University, St. Paul 17966

Carvalho, J C M
Museu Nacional, Rio de Janeiro, Brazil 17742

Casida, J E
California University, Berkeley; Division of Entomology 17796

Castro Umana, J J
Florida University, Gainesville 17797

Castro, J
California University, Riverside 18432

Cavell, B D
Bristol University; Dept. of Organic Chemistry 18485

Chang, S C
U. S. Dept. of Agriculture, Beltsville, Md.; Agricultural Research Service; Entomology Research Division 17798

Chang, S I
Washington State University 18226

Channon, A G
National Vegetable Research Station, Wellesbourne, Warwick; England 18433

Chappell, W E
Virginia Polytechnic Institute, Blacksburg; Dept. of Plant Pathology and Physiology 18158

Chee, K H
Rubber Research Institute of Malaya, Kuala Lumpur, Malaysia 17967

Chen, J T
Food and Drug Administration, Washington, D. C.; Division of Food Chemistry and Technology 18486

Chen, T
Boyce Thompson Institute for Plant Research, Yonkers, N. Y. 18133

Cheng, H H
Canada Dept. of Agriculture, Delhi, Ontario; Research Station 18086

Cheymol, J
Centre National de la Recherche Scientifique, Paris, France; Services scientifiques Societe; Faculte de Medecine; Institute de Pharmacologie 17800

Chiang, H C
Minnesota University, Saint Paul; Fisheries and Wildlife; Dept. of Entomology 17801

Chiang, H C
Minnesota University, St. Paul; Dept. of Entomology, Fisheries, and Wildlife 17802

Chiang, H C
Minnesota University, St. Paul; Dept. of Entomology, Fisheries and Wildlife 18087

Chicco, C F
Florida University, Gainesville 18227

Chitra, C
Indian Institute of Science, Bangalore; Fermentation Technology Laboratory 17803

Chmielewski, W
Instytut Ochrony Roslin, Posen, Poland 17743

Chomicz, L
Warsaw University, Poland; Dept. of Parasitology 18358

Clarke, J H
Agricultural Research Council, Slough; Biology Dept.; Pest Infestation Laboratory 18377

Clarke, M C
Institute for Research on Animal Diseases, Berkshire, Engl; Agricultural Research Council 18228

Claveran Alonso, R
Arizona University, Tucson 17919

Clerk, G C
Ghana University, Legon, Ghana, West Africa; Dept. of Botany 17968

Clifford, A J
Cornell University, Ithaca, New York; Dept. of Animal Science 18182

Cohen, S E
New York University 17804

Cole, H
Pennsylvania State University, University Park; Dept. of Plant Pathology 17969

Coley-Smith, J R
The University, Hull, England; Dept. of Botany 18434

Collins, W J
Ohio State University, Columbus 17805

Cone, W W
Washington State University, Prosser; Irrigated Agriculture Research and Extension Center 18088

Cook, A A
Florida University, Gainesville; Dept. of Plant Pathology 17970

Cook, R J
U. S. Dept. of Agriculture; Agricultural Research Service; Crops Research Division 17971

Cooke, R C
Rutgers - The State University, New Brunswick, New Jersey; College of Agriculture and Environmental Science; Dept. of Biochemistry and Microbiology 18134

Coon, B F
Pennsylvania State University, University Park; Dept. of Entomology 17806

Coon, B F
Pennsylvania State University, University Park; Dept. of Entomology 18089

Corbin, J B
California University, Davis 18435

BIOGRAPHICAL INDEX

Fowler, M E

Costonis, A C Cornell University, Ithaca, N. Y.	17972	Dikshith, T S S Central Food Technological Research Institute, Mysore, India	17903	El-Zein, A Illinois University	18240
Cottureau, P H Ecole Nationale Veterinaire de Lyon, France	18229	Dochinger, L S U. S. Dept. of Agriculture, Delaware, Ohio.; Forest Service.; Northeastern Forest Experiment Station	17975	El-Zik, K M Texas A and M University, College Station	17978
Courtright, J B Johns Hopkins University, Baltimore, Md.	17807	Dodd, K Cornell University, Ithaca, N. Y.	18238	Ellington, J J New Mexico State University, Las Cruces; Dept. of Botany and Entomology	17819
Cowart, W O Missouri University, Columbia; School of Veterina- ry Medicine; Dept. of Veterinary Pathology	18230	Doherty, R L Queensland Institute of Medical Research, Brisbane	17910	Eren, J Mekoroth Water Company, Nazareth, Israel; Nazareth Laboratory	18440
Coyler, D L U. S. Dept. of Agriculture, Hood River, Ore.; Agricultural Research Service	18436	Doi, R Tokyo University, Japan; Institute for Infectious Diseases; Dept. of Parasitology	18359	Erwin, D C California University, Riverside	17979
Craven, B R Louisiana State University, Baton Rouge; Agricul- tural Experiment Station; Dept. of Entomology	18090	Dolin, V G Ukrainian Research Institute of Plant Protection, Kiev, U.	17746	Esbo, H Swedish State Seed Testing Station, Solna	18441
Crawford, J G Charles Pfizer and Company Incorporated; Dept. of Biologics Development, Terre Haute,	18232	Douglas, D R Minnesota University, St. Paul	17976	Esch, H Notre Dame University, Indiana; Dept. of Biology	17820
Croghan, D L Cornell University, Ithaca, N. Y.	18233	Dowding, V M Cambridge University; Molteno Institute	17809	Esenether, G R U. S. Forest Products Laboratory, Madison, Wisconsin	17747
Crosskey, R W Commonwealth Institute of Entomology, London	17744	Drummond, R O U. S. Dept. of Agriculture, Kerrville, Tex.; Agricul- tural Research Service; Entomology Research Divi- sion	18347	Eto, M Chemo-Sero-therapeutic Research Institute, Ku- mamoto, Japan	18241
Csupka, S Dept. of Radiation Hygiene, Bratislava, Czechoslovakia; Regional Station of Hygiene and Epidemiology	18487	Druzhelyubova, T S All-union Research Institute of Plant Protection, Leningrad	17810	Eugenio, C P Minnesota University, St. Paul	18442
Cunningham, G N Texas University, Austin; Chemistry Dept.	18183	Dua, P M Mississippi State University, State College	18185	Evans, E D Canada Dept. of Agriculture, Ottawa; Soil Research Institute	18389
Curl, S E Texas Technological College, Lubbock	18234	Duggleby, W F Wisconsin University, Madison	17811	Ewan, R C Iowa State University, Ames, Iowa; Dept. of Animal Science	18242
Cutler, H G Maryland University, College Park	18437	Dunagan, T T Southern Illinois University, Carbondale; Dept. of Physiology	18186	Falcon, L A California University, Berkeley; Dept. of En- tomology and Parasitology	17822
Cysewski, S J U. S. Dept. of Agriculture, Ames, Iowa; Agricul- ture Research Service; Animal Disease and Parasite Research Division; National Animal Dis- ease Laboratory	18184	Duniway, J M Wisconsin University, Madison	17977	Farley, J D Michigan State University, East Lansing; Dept. of Botany and Plant Pathology	17980
Daniel, M D Harvard Medical School, Mass.; New England Pri- mate Research Center	18235	Dunn, S New Hampshire University, Durham	18161	Ferguson, A W Commonwealth and Scientific Industrial Research Organiza; Tion, Canberra; Division of Plant Indus- try	17920
David-West, T S Ontario Dept. of Health, Toronto, Canada; Public Health Laboratories; Virus Laboratory	18236	Duthoit, C M G National Agricultural Advisory Service, Reading, England	18092	Fernelius, A L Iowa State University, Ames	18243
Deep, I W Oregon State University, Corvallis; Dept. of Botany and Plant Pathology	17973	Dutkiewicz, J Instytut Medycyny Pracy i Higieny Wsi, Lublin, Po- land	17812	Feulner, R L Delaware University, Newark	18162
DeGroot, R C New York State Museum and Science Service, Al- bany	18438	Dziedzicka, A Teacher Training College of Agriculture, Krakow; Dept. of Zoology	17813	Finco, D R Minnesota University, Saint Paul; Collego of Veterinary Medicine; Dept. of Veterinary Medicine	18244
Deleurance, S Institut de Neurophysiologie et Psychophysiologie, Marseil; Comportement animal	17808	Ebeling, W California University, Los Angeles; Agricultural Sciences	17814	Finlayson, D G Canada Dept. of Agriculture, Vancouver; Research Station	18093
Denis, J Museum national d'Histoire Naturelle, Paris, France; Laboratoire de Zoologie (arthropodes)	17745	Ebrahim, S A Central Plant Protection Station, Ernakulam	18176	Fischman, A Auckland Hospital, Auckland, New Zealand; Dept. of Serology	18360
DePew, L J Kansas Agricultural Experiment Station; Garden City Branch	18091	Eguchi, M Kyoto University of Industrial Arts and Textile Fibers.; Kyoto, Japan; Faculty of Textile Fibres	17815	Fisher, F E Florida University, Lake Alfred; Citrus Experiment Station	17981
Deyoe, B L U. S. Dept. of Agriculture, Ames, Iowa; National Animal Disease Laboratory	18237	Eisner, T Cornell University, Ithaca, New York	17816	Fletcher, L W U. S. Dept. of Agriculture; Agricultural Research Service; Entomology Research Division	17823
Dickerson, C T Cornell University, Ithaca, New York; Dept. of Vegetable Crops	18160	El-Sayed, E S I Louisiana State University; Agricultural and Mechanical College	17818	Ford, R E Iowa State University, Ames	17982
Diener, T O U. S. Dept. of Agriculture, Beltsville, Md.; Agricul- tural Research Service	17974	El-Sharkawy, T A North Carolina State University, Raleigh	18439	Foster, J A Cornell University, Ithaca, N. Y.	17983
		El-Tobshy, Z M Louisiana State University; Agricultural and Mechanical College	18239	Fowler, M E California University, Davis; Dept. of Clinical Sciences	18412

BIOGRAPHICAL INDEX

Francis, J

Francis, J
Queensland University, Brisbane, Australia;
Veterinary School; Dept. of Preventive Medicine
18245

Francis, J
Queensland University, Brisbane, Australia;
Veterinary School
18348

Frank, F W
Idaho University, Caldwell; Agricultural Experiment Station; Veterinary Science Laboratory
18246

Franklin, R T
Georgia University, Athens; Dept. of Entomology
17748

Free, J B
Rothamsted Experimental Station, Hertfordshire
17732

Friend, R J
Wisconsin University
17984

Fung, P H
Cornell University, Ithaca, N. Y.
18247

Furr, R E
U. S. Dept. of Agriculture, Stoneville, Miss.;
Agricultural Research Service; Entomology Research Division
18094

Fye, R E
U. S. Dept. of Agriculture, Tucson, Arizona;
Agricultural Research Service; Entomology Research Division
17824

Galil, J
Tel-Aviv University, Israel; Dept. of Botany
18163

Gallagher, P A
Agricultural Institute, Kinscally, Malahide, Dublin;
Horticulture and Forestry Division
18413

Gallo, J T
Instituto Colombiano Agropecuario, Bogota, Columbia
18391

Gaona-Rodriguez, H
Texas A and M University
17985

Gardner, W S
California University, Davis
17986

Gaskin, D E
Massey University, Manawatu; Dept. of Zoology
17749

Geissinger, H D
Guelph University, Ontario; Ontario Veterinary College
18248

Gentry, C E
Kentucky University, Lexington
18443

Getty, S M
Michigan State University, East Lansing; College of Veterinary Medicine; Dept. of Surgery and Medicine
18249

Ghemawat, M S
Purdue University, Lafayette, Ind.
17987

Gill, H S
Illinois University, Urbana
18444

Gold, A H
California University, Berkeley
17988

Goldbloom, D E
California University, Berkeley
18250

Golden, A M
U. S. Dept. of Agriculture, Beltsville, Maryland;
Agricultural Research Service; Crops Research Division
18135

Goodman, R N
Missouri University, Columbia
17989

Gordon, D E
Wisconsin University, Madison
18251

Gordon, D T
Wisconsin University, Madison
17990

Gould, H J
National Agricultural Advisory Service, Reading, England
18095

Grasso, A
Istituto Superiore di Sanita, Rome, Italy
17827

Gravitz, N
Brandeis University, Waltham, Mass.; Dept. of Biochemistry
17828

Green, C D
Rothamsted Experimental Station, Harpenden, England
18136

Green, R J
Purdue University, Lafayette, Indiana; Dept. of Botany and Plant Pathology
17921

Griffin, G D
U. S. Dept. of Agriculture, Logan, Utah; Agricultural Research Service; Rops Research Division
18137

Griffin, G J
Virginia Polytechnic Institute, Blacksburg
18445

Groeneweg, J F
Wisconsin University, Madison
18488

Guerra, A A
U. S. Dept. of Agriculture, Brownsville, Tex.;
Agricultural Research Service; Entomology Research Division
17829

Guerra, A A
U. S. Dept. of Agriculture, Brownville, Tex.;
Agricultural Research Service; Entomology Research Division
18096

Gunner, H B
Massachusetts University; Institute of Agricultural and Industrial Microbiology; Dept. of Environmental Sciences
18384

Hagstrum, D W
California University, Riverside; Dept. of Entomology
17830

Hallab, A B
Louisiana State University; Agricultural and Mechanical College
18393

Hammer, U T
Saskatchewan University, Saskatoon; Dept. of Biology
18414

Hanks, R W
Florida Citrus Experiment Station, Lake Alfred
18138

Hara, F
Shimane Prefectural Institute of Animal Health, Izumo, Japa
18252

Harder, D E
Washington State University
17991

Harding, H
Wisconsin University
17992

Harding, J A
U. S. Dept. of Agriculture, Ankeny, Iowa; Agricultural Research Service; Entomology Research Division
17831

Hariharasubramanian, V
Arizona University, Tucson
17993

Harling, J
Durham University; Dept. of Zoology
17832

Harper, A M
Canada Dept. of Agriculture, Lethbridge; Research Station
18097

Harris, F A
Mississippi State University
17833

Harvey, A E
Washington State University
18489

Hashimoto, H
Hiroshima University, Japan; Faculty of Fisheries and Animal Husbandry
18253

Hastie, A C
Queen's College, Dundee; Dept. of Botany
17922

Hatch, R C
Guelph University, Ontario; Ontario Veterinary College
18254

Hauschild, A H W
Dept. of National Health and Welfare, Ottawa;
Food and Drug Directorate; Microbiology Division
18255

Hawkins, J D
Zejtun, Malta
18187

Hayman, D S
California University, Berkeley
17994

Heagle, A S
Minnesota University, St. Paul
17995

Heald, C M
U. S. Dept. of Agriculture, Tifton, Georgia;
Agricultural Research Service; Crops Research Division
18139

Heathcote, G D
Broom's Barn Experimental Station, Higham, Bury St. Edmunds; Suffolk, England
18098

Hedqvist, K-j
Royal College of Forestry, Stockholm, Sweden
17751

Helton, A W
Idaho University, Moscow; Dept. of Plant Sciences
17996

Henderson, J W
Animal Hospital, Port Arthur, Texas
18361

Hendrick, R D
California University, Riverside
17834

Henson, L
Kentucky University, Lexington
17997

Heydrick, F P
Pennsylvania State University, College Park
18256

Himoe, E
Wisconsin University, Madison
17904

Hirai, A
California University, Los Angeles
17998

Hirumi, H
Boyce Thompson Institute for Plant Research, Yonkers, N. Y.
18447

Hocking, D
East African Tropical Pesticides Research Institute, Arusha; Tanzania
17999

Hoff, R J
Washington State University
18000

Hosein, I
West Indies University, Trinidad; Citrus Research Unit
18001

Houser, B B
Wisconsin University, Madison; Dept. of Zoology
18363

Howard, E F
Wisconsin University, Madison
17835

Howarth, J A
Walter Reed Army Medical Center, Washington, D. C.; Armed Forces Institute of Pathology
18257

Hughes, I W
Florida University, Gainesville
17836

Hulley, P E
Rhodesia University College, Salisbury; Dept. of Zoology
17905

- Hunt, E G**
California Dept. of Fish and Game; Resources Agency
18385
- Hunter, D K**
California University, Riverside
17837
- Huo, W H**
Rensselaer Polytechnic Institute
18258
- Imamaliyev, A I**
Uzb.ssr Academy of Sciences; USSR; Institute of Experimental Biology
18448
- Imamura, T**
Ibaraki University, Mito, Japan; Biological Institute
17752
- Imberski, R B**
Maryland University, College Park; Dept. of Zoology
17838
- Inoue, Y K**
Kyoto University, Japan; Institute for Virus Research
18260
- Iverson, L G K**
U. S. Dept. of Agriculture, Hyattsville, Maryland; Agricultural Research Service; Plant Pest Control Division
18495
- Ives, W G H**
Dept. of Forestry and Rural Development, Winnipeg, Mani; Toba; Forest Research Laboratory
17839
- James, L F**
Utah State University, Logan
18188
- James, L F**
U. S. Dept. of Agriculture, Logan, Utah; Agricultural Research Service; Agricultural Experimental Station
18262
- Janes, M J**
Florida University, Belle Glade; Everglades Experiment Station
18349
- Jansen, J**
Institute for Infectious Diseases, Utrecht, Netherlands
18263
- Jarrett, E E E**
Glasgow University, Scotland; Wellcome Laboratories for Experimental Parasitology
18364
- Jespe, C T**
New Zealand Dept. of Scientific and Industrial Research; Lincoln; Entomology Division
17840
- Joffe, A Z**
Hebrew University, Jerusalem; Dept. of Botany
18003
- Johnson, H W**
U. S. Dept. of Agriculture, Stoneville, Miss.; Agricultural Research Service
18004
- Johnson, L B**
California University, Davis; Dept. of Agronomy
18005
- Johnston, H W**
Rhode Island University
18006
- Jones, F G W**
Rothamsted Experimental Station, Harpenden, England
18140
- Jones, H C**
Seed Protein Pioneering Research Laboratory, New Orleans; Louisiana
18449
- Jones, P H**
Purdue University, Lafayette, Indiana
18189
- Jones, P H**
Purdue University, Lafayette, Indiana
18190
- Jordan, F T W**
Liverpool University Veterinary Field Station, Cheshire, Eng; Dept. of Veterinary Preventive Medicine; Poultry Section
18266
- Juberthie-Jupeau, L**
Centre National de la Recherche Scientifique, Ariege, Fran; Laboratoire souterrain
17841
- Kaiser, M N**
U. S. Naval Research Unit Number Three, Cairo, Egypt; Dept. of Medical Zoology
17733
- Kamp, H**
Institut für Hygiene und Arbeitsmedizin des Klinikums; Essen der Ruhr-Universität Bochum.
17842
- Kao, V P**
Commonwealth Institute of Biological Control, Bangalore, In
17923
- Karbe, E**
Connecticut University, Storrs
18267
- Karpel, M A**
Rutgers-the State University, New Brunswick, N. J.; Dept. of Entomology
17843
- Kassanis, B**
Rothamsted Experimental Station, Harpenden, Hertfordshire; England
18007
- Keen, N T**
Wisconsin University, Madison
18008
- Keirans, J E**
U. S. National Communicable Disease Center, Savannah; Bureau of Disease Prevention and Environmental Control; Technical Development Laboratories
17844
- Kelsey, J M**
New Zealand Dept. of Scientific and Industrial Research; Lincoln; Entomology Division
17845
- Kenny, K V**
Florida University, Gainesville
18269
- Kerkut, G A**
Southampton University, England; Dept. of Physiology and Biochemistry
17846
- Kerr, E D**
Public Health Service, Cincinnati, Ohio; National Center for Air Pollution Control
18009
- Kindler, S D**
Nebraska University, Lincoln; Dept. of Entomology
18099
- Kinloch, B B Jr.**
North Carolina State University, Raleigh
18010
- Kirk, V M**
U. S. Dept. of Agriculture, Brookings, S. D.; Agricultural Research Service; Entomology Research Division
18100
- Kishaba, A N**
U. S. Dept. of Agriculture, Riverside, Calif.; Agricultural Research Service; Entomology Research Division
17847
- Kitayama, H**
Hokkaido Institute of Public Health, Japan
18365
- Klein, A K**
Food and Drug Administration, Washington, D. C.; Bureau of Science; Division of Food Chemistry
18379
- Klake, E L**
Illinois University, Urbana; Dept. of Agronomy
18165
- Knapka, J J**
Tennessee University Agricultural Research Laboratory; Oak Ridge
18271
- Koenigs, J W**
U. S. Forest Service, Research Triangle Park, N. C.
18450
- Koerber, T W**
California University, Berkeley
18101
- Koger, L M**
Washington State University, Pullman; College of Veterinary Medicine; Dept. of Clinical Medicine and Surgery
18272
- Kohler, E M**
Ohio Agricultural Research and Development Center; Dept. of Veterinary Science
18273
- Kojima, M**
Hokkaido University, Sapporo, Japan; Faculty of Agriculture; Dept. of Plant Pathology
18102
- Kongsvik, J R**
New York State University, Buffalo
18011
- Koontz, R F**
Oregon State University
18012
- Koppa, P**
Agricultural Research Centre, Tikkurila, Finland; Dept. of Pest Investigation
17753
- Kosova, A A**
Astrakhan State Reservation, Russia
17754
- Krieg, A**
Institut für Biologische Schädlingsbekämpfung, Darmstadt; Biologische Bundesanstalt für Land- und Forstwirtschaft
18103
- Kroll, R E**
Minnesota University, St. Paul
18013
- Krugman, S L**
U. S. Dept. of Agriculture, Berkeley, Calif.; Pacific Southwest Forest and Range Experiment Station; Forest Service
18451
- Kucharek, T A**
Oklahoma State University, Stillwater
18452
- Kulik, S A**
Agricultural Institute of Irkutsk, Russia
17755
- Kung, K S**
Florida University, Gainesville
17848
- Kuo, M S**
Michigan State University, East Lansing
18453
- Kybal, J**
Research Institute for Natural Drugs
18454
- Kyrou, N C**
Seventh Inspectorate of Agriculture, Thessaloniki, Greece.
17925
- Lai, P Y**
Iowa State University, Ames
18455
- Lal, T B**
Plant Quarantine and Fumigation Station, Bombay
18014
- Lall, R M**
Saskatchewan University
17850
- Lallmahomed, G M**
Ibadan University, Moor Plantation; U. S. Dept. of Agriculture; Agricultural Research Service; Nigeria and Crops Research Division
18015
- Lalor, W F**
Iowa State University, Ames
18493
- Lancaster, J L**
Arkansas University, Fayetteville; Dept. of Entomology
18350
- Lassiter, J W**
Georgia University, Athens; Dept. of Animal Science
18274
- Latterell, F M**
Fort Detrick, Frederick, Md.
18016
- Laut, J G**
Dept. of Forestry and Rural Development of Canada; Winnipeg, Manitoba
17926

BIOGRAPHICAL INDEX

Leben, C

- Leben, C
Ohio Agricultural Research and Development Center, Wooster
18017
- Lee, S G
Iowa State University, Ames
18456
- Leiderman, I.
Brasil Botanica, Rio de Janeiro-guanabara; XVIII Congresso
18166
- Leland, S E
Florida Agricultural Experiment Stations, Gainesville; Dept. of Veterinary Science
18275
- Lent, H
Instituto Oswaldo Cruz, Rio de Janeiro, Brazil; Divisao de Zoologia
17853
- Leuck, D B
U. S. Dept. of Agriculture, Tifton, Ga.; Agricultural Research Service; Entomology Research Division
18104
- Leuck, D B
U. S. Dept. of Agriculture, Tifton, Ga.; Agricultural Research Service; Entomology Research Division
18400
- Levi, M P
Hickson's Timber Research and Development Laboratories; Castleford, Yorkshire, England
18018
- Lewandowska, I
Warsaw University, Poland; Dept. of Parasitology
18367
- Lewis, D J
British Museum (natural History), London; Medical Research Council; External Staff
17854
- Lewis, J A
U. S. Dept. of Agriculture, Beltsville, Md.; Agricultural Research Service
18019
- Lewis, W J
Mississippi Agricultural Experiment Station, State College; Dept. of Entomology
17855
- Lewis, W J
Mississippi State University
18141
- Libby, J L
Ifc University, Nigeria
18105
- Lim, S M
Illinois University, Urbana; Dept. of Plant Pathology
18020
- Linderman, R G
U. S. Dept. of Agriculture, Beltsville, Md.; Agricultural Research Service
18021
- Lindley, E P
United Nations Development Programme, Khartoum, Africa; Near East Animal Health Institute
18276
- Line, R F
Fort Detrick, Frederick, Md.
18022
- Lincro, M Q de
Oriente Universidad, Venezuela; Escuela de Medicina; Dept. de Parasitologia-Microbiologia; Seccion de Entomologia
17756
- Lippincott, J A
Northwestern University, Evanston, Ill.
18023
- Livshitz, I S
Nikitsky Botanical Garden, Russia
17757
- Lloyd, E P
U. S. Dept. of Agriculture, State College, Miss.; Agricultural Research Service; Entomology Research Division
17856
- Lobanov, A M
Medical Institute of Ivanovo, Russia; Dept. of Biology and General Genetics
17758
- Lodhi, A F
California University, Davis
17927
- Loefering, W Q
U. S. Dept. of Agriculture, Beltsville, Maryland; Agricultural Research Service; Crops Research Division
18024
- Lopez-Abella, D
Inst. Jaime Ferran, de Microbiologia, Joaquin Costa, Spai
18142
- Lozano, J C
Wisconsin University, Madison
18025
- Lukens, R J
Connecticut Agricultural Experiment Station, New Haven
18026
- Lykken, L
California University, Berkeley
18401
- Mac Bain, A G
Desplains Valley Mosquito Abatement District, Lyons, Illi
18494
- MacKay, M R
Canada Dept. of Agriculture, Ottawa, Ontario; Entomology Research Institute
17857
- MacKenzie, D R
Pennsylvania State University, University Park
18027
- MacLaren, J P
Canal Zone Government, Balboa Heights; Health Bureau; Division of Sanitation
17912
- Macy, R M
Tennessee University, Knoxville
17906
- Madden, D L
National Institutes of Health, Bethesda, Maryland; National Institute of Allergy and Infectious Diseases; Laboratory of Bacterial Diseases
18277
- Maier, C R
New Mexico State University, Las Cruces; Dept. of Botany and Entomology; Plant Pathology
18028
- Main, C E
North Carolina State University, Raleigh
18029
- Malik, R A
Dept. of Agriculture, Jammu and Kashmir, Srinagar
18106
- Mandeles, S
California University, Berkeley; Space Sciences Laboratory
18457
- Mann, W F
U. S. Dept. of Agriculture, Alexandria, La.; Forest Service; Southern Forest Experiment Station
18107
- Manning, A
Edinburgh University, Scotland; Dept. of Zoology
17858
- Mansfield, M E
Illinois University, Simpson; College of Agriculture; Dixon Springs Agricultural Center
18279
- Mansfield, M E
University of Illinois, Urbana; Dixon Springs Agricultural Center
18368
- March, B E
British Columbia University, Vancouver
18280
- Margulies, L
New York City University
17907
- Markin, G P
California University, Riverside
17859
- Marsh, P B
U. S. Dept. of Agriculture, Beltsville, Md.; Agricultural Research Service; Crops Research Division
18108
- Martin, F H
Michigan State University, East Lansing
18281
- Martin, N E
U. S. Dept. of Agriculture, Moscow, Idaho; Forest Science Laboratory
18030
- Martin, R J
Illinois Dept. of Public Health, Springfield, Ill.
18282
- Matsumoto, T T
California University, Davis
18458
- Matsuno, K
Kyoto Prefectural University of Medicine, Kyoto, Japan; Dept. of Medical Zoology
18283
- Matthysse, J G
Cornell University, Ithaca, N. Y.; Entomology Dept.
18403
- Maxwell, C W
Canada Dept. of Agriculture, Fredericton; Research Station
17860
- Maxwell, D
Cornell University, Ithaca, N. Y.
18459
- Maxwell, D P
Cornell University, Ithaca, N. Y.
18460
- Mayor, O Y
Near East Animal Health Institute, Beirut, Lebanon; Fanar Regional Poultry Laboratory
18284
- Mayr, A
Ludwig Maximilian University, Munich, Germany; Institute of Microbiology and Infectious Diseases of Anim
18285
- McCracken, F I
U. S. Forest Service, Stoneville, Miss.; Southern Hardwoods Laboratory
18461
- McErlean, B A
Veterinary College, Ballsbridge, Dublin
18287
- McFadden, M W
U. S. Dept. of Agriculture, Oxford, N. C.; Agricultural Research Service; Entomology Research Division
17861
- McGee, D C
Minnesota University, St. Paul
18031
- McIntyre, R J
Cornell University, Ithaca, New York; Division of Biological Sciences; Development and Physiology; Section of Genetics
17862
- McKercher, P D
U. S. Dept. of Agriculture, Greenport, Long Island, New York; Agricultural Research Service; Animal Disease and Parasite Research Division; Plum Island Animal Disease Laboratory
18288
- McKercher, P D
U. S. Dept. of Agriculture, Greenport, New York; Agricultural Research Service; Animal Disease and Parasite Research Division; Plum Island Animal Disease Laboratory
18289
- McMasters, V R
California University, Berkeley
18290
- McMillan, R T
Washington State University
18032
- Medvedev, L N
USSR Academy of Sciences, Leningrad; Zoological Institute
17759
- Mehl, R
Oslo University, Norway; Zoological Museum
17760
- Melville, S C
National Agricultural Advisory Service, Starecross, England
18033
- Mengeling, W L
U. S. Dept. of Agriculture, Ames, Iowa; Agricultural Research Service; Animal Disease and

- Parasite Research Division; National Animal Disease Laboratory 18291
- Merrill, W**
Pennsylvania State University, University Park 18034
- Mertz, D**
Missouri University, Columbia; Laboratory of Growth and Development 18462
- Meyer, D L**
Illinois University, Urbana 18292
- Miller, C R**
Florida State University, Gainesville 18036
- Miller, J W**
Missouri University, Portageville 17928
- Miller, L D**
Catholic University of America, Washington, D. C. 17864
- Miller, P M**
Connecticut Agricultural Experiment Station, New Haven 17929
- Miller, P M**
Connecticut Agricultural Experiment Station, New Haven 18143
- Mills, J H L**
Saskatchewan University, Saskatoon, Canada; College of Veterinary Medicine; Dept. of Veterinary Pathology 18369
- Milne, K S**
California University, Davis 18037
- Mircetich, S M**
U. S. Dept. of Agriculture, Beltsville, Maryland; Agricultural Research Service; Crops Research Division 18463
- Mook, J H**
Institute for Ecological Research, Arnhem, The Netherlands 17761
- Moon, H W**
Brookhaven National Laboratory, Upton, New York; Medical Research Center 18293
- Moore, W E C**
Virginia Polytechnic Institute, Blacksburg; Dept. of Veterinary Science 18294
- Moscovici, C**
Veterans Administration Hospital, Gainesville, Florida; Virus Research Laboratory 18295
- Moulthrop, J I**
Minnesota University, St. Paul 18296
- Mount, M S**
Michigan State University 18038
- Munk, R**
Zoologisches Institut der Universität Heidelberg, Germany 17865
- Musick, G J**
Missouri University, Columbia; Dept. of Entomology 17866
- Nash, T A M**
Bristol University, England; School of Veterinary Science; Tsetse Research Laboratory 17867
- Nayar, J K**
Florida State Board of Health, Vero Beach, Florida; Entomological Research Center 17868
- Nemeth, I**
Hungarian Academy of Sciences, Budapest; Veterinary Medical Research Institute 18191
- Newhall, A G**
Instituto Interamericano de Ciencias Agrícolas, Costa Rica 18041
- Newton, W L**
National Institute of Health, Bethesda, Maryland; National Institute of General Medical Science 18297
- Nicholls, C F**
Canada Dept. of Agriculture, Belleville; Research Institute 17734
- Nichols, J B**
Florida State Board of Health, Jacksonville; Division of Veterinary Public Health 18298
- Nicoletti, P**
U. S. Dept. of Agriculture, Albany, New York 18299
- Nightingale, H I**
Utah State University, Logan 18464
- Novilla, M N**
Colorado State University, Fort Collins 18300
- Nunberg, M**
Landwirtschaftliche Universität, Warszawa, Polen 17762
- Nyberg, P A**
Oregon State University, Corvallis 18301
- O'Bannon, J H**
U. S. Dept. of Agriculture, Orlando, Florida; Agricultural Research Service; Crops Research Division 18144
- O'Reilly, K J**
Wellcome Research Laboratories, Beckenham, England 18302
- Oberg, K-e**
Uppsala University, Sweden; Institute of Zoophysiology 18415
- Ose, E E**
Eli Lilly and Company, Greenfield; Veterinary Research Dept. 18380
- Osipov, G V**
Pedagogical Institute of Orel, Russia 17869
- Ozawa, Y**
Near East Animal Health Institute, Teheran, Iran; Razi Serum and Vaccine Institute 18304
- Pal, S G**
The Queen's University of Belfast, North Ireland; Dept. of Zoology 18305
- Pantulu, J V**
Andhra University, Waltair, India; Dept. of Botany 18465
- Papasolomontos, A**
Cyprus Ministry of Agriculture and Natural Resources; Agricultural Research Institute 18042
- Parent, B**
Ministère de l'Agriculture du Canada, Saint Jean; Station de Recherches 18109
- Patterson, R S**
U. S. Dept. of Agriculture, Gainesville, Fla.; Agricultural Research Division; Entomology Research Division 18110
- Pattxn, S R**
Prince Leopold Institute for Tropical Medicine, Belgium 17735
- Payne, J A**
U. S. Dept. of Agriculture, Tifton, Georgia; Agricultural Research Service 17764
- Peleg, J**
Israel Institute for Biological Research, Ness-ziona 17870
- Peterson, L G**
Illinois University 17871
- Pettit, B J**
Marquette University, Milwaukee, Wis. 17872
- Pettit, R E**
Texas A and M University, College Station; Texas Agricultural Experiment Station; Dept. of plant Sciences 18043
- Phillips, L A**
Kansas University, Lawrence 18306
- Pickrell, J A**
Illinois University, Urbana; College of Veterinary Medicine; Dept. of Veterinary Physiology and Pharmacology 18307
- Pierpoint, W S**
Rothamsted Experimental Station, Herts, England; Biochemistry Dept. 18045
- Pinkas, J**
Rehovot (Israel) National and University Institute of Agr; Volcani Institute of Agriculture; Division of Plant Pathology 18046
- Pitcher, R S**
East Malling Research Station, Maidstone, England 18145
- Pol, E W**
Keuringsdienst van Waren voor het Gebied; Amsterdam, Keizersgracht 18406
- Polatnick, J**
U. S. Dept. of Agriculture, Greenport, New York; Agricultural Research Service; Animal Disease and Parasite Research Division; Plum Island Animal Disease Laboratory 18308
- Polatnick, J**
U. S. Dept. of Agriculture, Greenport, New York; Agricultural Research Service; Animal Disease and Parasite Research Division; Plum Island Animal Disease Laboratory 18309
- Polson, D E**
Michigan State University 18466
- Pontis, R E**
Universidad Nacional de Cuyo; Dept. of Plant Pathology 18047
- Post, J E**
Cornell University, Ithaca, N. Y. 18310
- Pozsar, B I**
Research Institute for Plant Protection, Budapest, Hungary 18048
- Prasad, S K**
Indian Agricultural Research Institute, New Delhi, India 18146
- Price, W C**
Guinobatan Experiment Station, Guinobatan, Philippines 18049
- Procter, B G**
Canada Dept. of Agriculture; Division of Pathology, Health of Animals Branch; Montreal Area Branch Laboratory, Macdonald College, Quebec 18372
- Pruess, K P**
Nebraska University, Lincoln; Dept. of Entomology 18111
- Punter, D**
Canada Dept. of Forestry and Rural Development, Ontario 17930
- Purnell, R E**
East African Veterinary Research Organization, Muguga, Kenya 17873
- Qualset, C O**
Tennessee University, Knoxville; Dept. of Agronomy 18050
- Quattrochi, L P**
Chemagro Corporation, Kansas City, Missouri 17874
- Raatikainen, M**
Agricultural Research Centre, Tikkurila, Finland; Dept. of Pest Investigation 17875

BIOGRAPHICAL INDEX

Radzichovskaja, R

Radzichovskaja, R
Academy of Medical Sciences, Moscow, United Soviet Socia; List Republic; Institute of Experimental and Clinical Oncology
18311

Rainey, D P
Wisconsin University, Madison
18051

Rappaport, L
California University, Davis; Dept. of Vegetable Crops
18467

Ray, B R
Florida University, Gainesville
18169

Reid, D M
Queen's University, Belfast; Dept. of Botany
18468

Retnakaran, A
Wisconsin University, Madison; Dept. of Entomology
18786

Rich, S
Connecticut Agricultural Experiment Station, New Haven
17931

Richmond, D V
Bristol University, England; Long Ashton Research Station
18469

Roach, S H
Texas A and M University
17877

Roberts, J A
Commonwealth Scientific and Industrial Research Organiza; Tion, Yceorngpilly, Queensland, Australia; Veterinary Parasitology Laboratory; Division of Animal Health
18351

Robinson, R A
Ruakura Agricultural Research Centre, Hamilton, New Zealand
18312

Rodricks, J V
Maryland University, College Park
18416

Rogers, C E
U. S. Dept. of Commerce, Lexington, Ky; Dept. of Entomology
18373

Roncadori, R W
Georgia University, Athens; Dept. of Plant Pathology and Plant Genetics
18052

Ross, D B
Farm Livestock Research Cntr, Essex; Animal Health Trust
18313

Roth, H
U. S. Dept. of Agriculture, Hoboken, N. J.; Agricultural Research Service; Entomology Research Division
18112

Roth, L M
U. S. Army Natick Laboratories, Natick, Mass.; Pioneering Research Laboratory
17765

Rout, G
College of Agriculture, Bhubaneswar, Orissa, India
18113

Ruphras, N S
Veterinary College, Hissar-Haryana, India; Parasitology Dept.
17766

Russell, W G
Tennessee University, Jackson; West Tennessee Experiment Station; Dept. of Agricultural Biology
18114

Saaltink, G J
Commissie voor de Terminologie van de Nederlandse; Planteziektenkundige Vereniging
17932

Saiduddin, S
Wisconsin University, Madison
18192

Saini, M L
Punjab Agricultural University, Ludhiana
18115

Salmon, A J
Washington State University
18314

Sander, K
Zoologisches Institut der Universitat, Freiburg I. Br.; Germany
17878

Sanz, F
Facultad de Veterinaria de Madrid, Spain; Catedra de Farmacologia
18374

Sarkissian, I V
West Virginia University, Morgantown; Dept. of Agronomy and Genetics
18470

Saunders, J L
Washington State University, Puyallup; Western Washington Research and Extension Center
17767

Savitzky, B P
Research Institute of Epidemiology and Microbiology, Russi
17768

Scaramuzzi, G
Universita di Catania; Instituto di Patologia Vegetale
17933

Schieber, E
Instituto Agrario Nacional, Guatemala
18053

Schieber, E
Instituto Agrario Nacional, Guatemala
18054

Schmidt, R C
U. S. Dept. of Health, Education and Welfare; Public Health Service, Lawrenceville, Georgia
18315

Schoeneweiss, D F
Illinois Natural History Survey, Urbana, Illinois; Section of Applied Botany and Plant Pathology
18055

Scholten, H
Minnesota University, Minneapolis
18056

Scott, H G
U. S. Public Health Service Hospital, New Orleans, Louisiana
17913

Sechler, D
U. S. Dept. of Agriculture, Gainesville, Florida.; Agricultural Research Service; Quincy and Crops Research Division
18057

Sechler, D T
U. S. Dept. of Agriculture, Gainesville, Florida.; Agricultural Research Service; Quincy and Crops Research Division
18147

Seidman, G
U. S. Dept. of Agriculture; Crops Research Division
18473

Seinhorst, J W
Institute of Phytopathological Research, Wageningen, The Ne
18148

Seligman, I M
Illinois University
17879

Sellers, R F
The Animal Virus Research Institute, Surrey, England
18316

Sellers, R F
The Animal Virus Research Institute, Surrey, England
18317

Senotrusova, V N
Academy of Sciences of The Kazakh, Alma-ata, USSR; Institute of Zoology
17769

Seth, M L
Indian Agricultural Research Institute, New Delhi; Division of Mycology and Plant Patmology
18116

Shaw, J G
U. S. Dept. of Agriculture; Agricultural Research Service; Entomology Research Division
18117

Sheikh, S A
West Pakistan Veterinary Research Institute, Lahore
18318

Shepard, J F
Montana State University, Bozeman; Dept. of Botany and Microbiology
18058

Sheridan, J E
Victoria University, Wellington, New Zealand; Dept. of Botany
18059

Shevchenko, A K
Kharkov University, USSR
17880

Shimanuki, H
U. S. Dept. of Agriculture, Beltsville, Md.; Agricultural Research Service; Entomology Research Division
17881

Shipton, W A
Canada Dept. of Agriculture, Winnipeg, Manitoba; Research Station
18060

Shoukry, K S M
Utah State University, Logan
18061

Showers, W B
U. S. Dept. of Agriculture, Ankeny, Iowa; Agricultural Research Service; Entomology Research Division
17882

Simpson, W R
Idaho University, Moscow; Plant Science Dept
18062

Singh, B B
Udaipur University, Bikaner, India; College of Veterinary and Animal Science
18381

Singh, H
Directorate of Plant Protection, Quarantine and; Storage, New Delhi
18193

Singh, M
Wisconsin University, Madison; Dept. of Plant Pathology
18063

Siradhana, B S
Udaipur University, Rajasthan, India
18064

Smerlis, E
Dept. of Forestry and Rural Development; Forest Research Laboratory, Quebec, Canada
18065

Smith, A
Animal Husbandry and Dairy Research Institute, South Africa
18194

Smith, C T
Massachusetts University, Amherst; College of Agriculture; Dept. of Feed and Fertilizer
18491

Smith, J W
Missouri-Rolla University, Rolla; Environmental Health Research Center
18417

Smith, L W
California University, Davis
18474

Smith, P C
South East Asian Treaty Organization Medical Project, Bangkok; Thailand; Medical Research Laboratory
18320

Smith, R H
U. S. Dept. of Agriculture, Asheville, N. C.; Forest Service; Southeastern Forest Experiment Station
18118

Smith, S H
California University, Berkeley; Dept. of Plant Pathology
18066

Snoeyenbos, G H
Massachusetts University, Amherst; Dept. of Veterinary and Animal Sciences
18321

Soave, O A
Stanford Medical School, Palo Alto, California; Dept. of Medical Microbiology; Animal Care Facility
18322

Soave, O A
Stanford Medical School, Palo Alto, California; Dept. of Medical Microbiology
18323

BIOGRAPHICAL INDEX

Wilkinson, D R

- Soderstrom, E L
U. S. Dept. of Agriculture, Fresno, Calif.; Agricultural Research Service; Market Quality Research Division; Stored-product Insects Research Branch
17883
- Sollod, A E
Saskatchewan University, Saskatoon, Canada; College of Veterinary Medicine
18375
- Stahler, N
Naval Medical Research Institute, Bethesda, Md.
17885
- Standfast, H A
Queensland Institute of Medical Research, Brisbane
17914
- Staples, R
Nebraska University, Lincoln; Dept. of Entomology
18067
- Stegmaier, C E
Florida Dept. of Agriculture; Division of Plant Industry; Florida State Collection of Arthropods
17770
- Stein, V W
Justus Liebig-universitat, Giessen; Institut fur Phytopathology
18068
- Stern, V M
California University, Riverside; Dept. of Entomology
17886
- Stewart, P A
U. S. Dept. of Agriculture, Oxford, N. Y.; Agricultural Research Service
17736
- Stoner, M F
Washington State University, Pullman
18492
- Strandberg, J D
Cornell University, Ithaca, N. Y.
18324
- Strauss, J
Institute of Epidemiology and Microbiology, Czechoslovakia
18195
- Strong, R G
California University, Riverside; Dept. of Entomology
17887
- Sudakova, I M
Middle-Asian Research Institute of Phytopathology, Tashken
18149
- Susidko, P I
All-Union Research Institute of Maize, Dnepropetrovsk, U.
18119
- Sussman, D E
Iowa State University, Ames
18196
- Sutherland, O R W
Dept. of Zoology, Downing Street, Cambridge
18120
- Sutmoller, P
U. S. Dept. of Agriculture, Greenport, New York; Agricultural Research Service; Animal Disease and Parasite Research Division; Plum Island Animal Disease Laboratory
18325
- Sutmoller, P
U. S. Dept. of Agriculture, Greenport, New York; Agricultural Research Service; Animal Disease and Parasite Research Division; Plum Island Animal Disease Laboratory
18326
- Swensson, A
Dept. of Occupational Health, Karolinska Sjukhuset, Stock; Holm
18418
- Taber, R A
Texas A and M University, College Station; Dept. of Plant Sciences
18069
- Taber, W A
Texas A and M University
17934
- Tajima, M
Wisconsin University, Madison; Dept. of Veterinary Science
18328
- Talerico, R L
U. S. Dept. of Agriculture, Hamden, Connecticut; Northeastern Forest Experiment Station; Forest Insect and Disease Laboratory
17889
- Tamaki, G
U. S. Dept. of Agriculture, Yakima, Washington; Agricultural Research Service; Entomology Research Division
18121
- Tamaki, G
U. S. Dept. of Agriculture, Yakima, Wash.; Agricultural Research Division; Entomology Research Division
18122
- Tanner, C E
McGill University, Macdonald College, Quebec, Canada; Institute of Parasitology
18329
- Teetes, G L
Texas A and M University, College Station; Dept. of Entomology
18123
- Teliz, D.
Instituto Nacional de Investigaciones Agricolas, Mexico; Departamento de Fitopatologia
18070
- Temple, C
Southern Research Institute, Birmingham, Ala.
18124
- Teploukhova, T N
USSR Academy of Sciences, Leningrad; Zoological Institute
18151
- Thomas, H A
U. S. Forest Service, Research Triangle Park, North Carolina; Southeastern Forest Experiment Station; Forestry Sciences Laboratory
17773
- Thrasher, J P
Georgia University, Athens; School of Veterinary Medicine; Dept. of Medicine and Surgery
18330
- Thyr, B D
U. S. Dept. of Agriculture, Wyoming; Agricultural Research Service; Crops Research Division
18071
- Tietjen, W L
Tennessee University, Knoxville
17891
- Tiffon, Y
Faculte des Sciences, Caen, France; Laboratoire de Zoologie; Groupe de Physiologie des Mollusques
18178
- Tilavov, T
USSR Academy of Sciences, Moscow; Institute of Evolutionary Morphology and Ecology of Anima
17892
- Todd, G C
Dept. of Health, Education, and Welfare; Food and Drug Administration, Beltsville, Maryland; Bureau of Veterinary Medicine
18382
- Todd, J W
Auburn University, Ala.; Agricultural Experiment Station; Dept. of Zoology-Entomology
18125
- Tokumaru, T
Pennsylvania University, Philadelphia; School of Medicine; Dept. of Pediatrics
18331
- Torok, D
Pennsylvania State University, McKeesport; Dept. of Biology
17935
- Townshend, J L
Canada Dept. of Agriculture, Vineland Station, Ontario; Research Station
18152
- Trudgill, D L
Rothamsted Experimental Station, Harpenden, England
18154
- Trum, B F
Harvard Medical School, Boston, Massachusetts; Animal Research Center
18332
- Tu, J C
Washington State University, Pullman, Washington; Dept. of Plant Pathology.
18072
- Turkoglu, K
Ankara Zirai Mucadele Enstitusu Meyua, Sefi; Bag Hastaliklari Laboratuvari
18073
- Ushijima, J
College of Dairy Farming, Ebetsu, Japan; Veterinary School
18333
- Van Dyke, C G
Illinois University
18074
- Van Houweling, C D
Food and Drug Administration, Washington, D. C.; Bureau of Veterinary Medicine
18496
- Van Walleghem, P A
Florida University
18334
- Verner, M A J
State University of Utrecht, Netherlands; Small Animal Clinic
18335
- Vosdingh, R A
Virus and Rickettsia Division, Fort Detrick, Frederick, Md.
18336
- Wagenbach, G E
Wisconsin University, Madison.
18419
- Walker, D W
Puerto Rico Nuclear Center, Mayaguez
18127
- Wandera, J G
Nairobi University College, Kenya; Faculty of Veterinary Science
18338
- Ward, G M
Colorado State University, Fort Collins; Dept. of Animal Science
18197
- Wareham, A C
Science Laboratories, South Road, Durham; Dept. of Zoology
17896
- Warrington, R E
The Animal Virus Research Institute, Surrey, England
18339
- Watters, F L
Canada Dept. of Agriculture, Winnipeg; Research Branch
17897
- Way, J M
Monks Wood Experimental Station, Hunts, England
18075
- Webster, J M
Canada Dept. of Agriculture, Ontario; Research Branch; Research Institute
18155
- Wene, G P
Arizona University, Tucson; Dept. of Entomology
17898
- Wene, G P
Arizona Agricultural Experiment Station, Tucson
18128
- Westermarck, T
Royal Institute of Technology, Stockholm; Division of Nuclear Chemistry
18198
- Westoo, G
National Institute of Public Health, Stockholm; Dept. of Food Hygiene
18199
- White, W B
Purdue University, Lafayette, Ind.; Dept. of Entomology
18129
- Widmark, G
Stockholm University, Stockholm; Institute of Analytical Chemistry
18408
- Wilhelm, A R
Wisconsin University, Madison
18340
- Wilkinson, D R
Illinois University, Urbana
17937
- Wilkinson, D R
Pioneer Hi-Bred Corn Company, Johnston, Iowa; Dept. of Plant Breeding
18076

BIOGRAPHICAL INDEX

Wilkinson, G T

- Wilkinson, G T
Animal Health Trust Small Animals Centre, Kennett, Canada
18420
- Willetts, H J
New South Wales University, Australia; School of Biological Sciences
18477
- Williams, J E
U. S. Dept. of Agriculture, Athens, Georgia; Agricultural Research Service; Animal Disease and Parasite Research Division; Southeast Poultry Research Laboratory
18341
- Williams, L P
World Health Organization, Geneva, Switzerland; Research in Epidemiology and Communications Science Unit
18342
- Williamson, R L
California University, Riverside
17899
- Witherell, S S
Wisconsin University, Madison
18478
- Witte, K H
Wisconsin University; Dept. of Veterinary Science
18343
- Wolfe, M S
Plant Breeding Institute, Cambridge, England
18130
- Wong, K
Wisconsin State University, Superior; Dept. of Biology
18156

- Woodruff, A W
Hospital for Tropical Diseases, London; School of Hygiene and Tropical Medicine
18376
- Woods, G T
College of Veterinary Medicine and Agricultural Experiment; Station, Urbana, Illinois; Dept. of Pathology and Hygiene
18344
- Woodside, A M
Virginia Polytechnic Institute, Blacksburg; Research Division; Dept. of Entomology
17900
- Worley, R E
Georgia University, Tifton; Coastal Plain Experiment Station
18077
- Woude, G F V
U. S. Dept. of Agriculture, Greenport, New York; Agricultural Research Service; Plum Island Animal Disease Laboratory
18345
- Wright, C C
North Carolina Agricultural Experiment Station, Raleigh
17901
- Wright, C P
Utah University, Salt Lake City
17908
- Yanders, A F
Commonwealth Scientific and Industry Research Organization; Canberra, Australia; Division of Plant Industry
17909

- Yang, S M
Wisconsin University, Madison; Dept. of Plant Pathology
18078
- Ylimaki, A
Agricultural Research Centre, Tikkurila, Finland; Dept. of Plant Pathology
18079
- Zadoks, J C
Wageningen Landbouwhogeschool, Netherlands; Laboratorium voor Plantenziektenkundige
18080
- Zavortink, T J
California University, Los Angeles
17775
- Zemanek, J
Central Research Institute of Plant Production, Praha, Czech
18479
- Zemskaya, A A
USSR Academy of Medical Sciences, Moscow; Institute of Epidemiology and Microbiology; Division of Infections with Natural Foci
17915
- Zimmerer, R P
Pennsylvania State University, College Park
18481
- Zumt, F
South African Institute for Medical Research, Johannesburg
17776
- Zwet, T Van Der
U. S. Dept. of Agriculture, Beltsville, Md.; Agricultural Research Service; Crops Research Division
18081

AUTHOR INDEX

Abelseth, M K	18201	Bennett, J H	18316	Bussel, J	18431	18232	
Abraham, P D	18421	Benson, A P	17948	Butcher, J E	18262	Critchfield, N B	18451
Adams, F S	18161	Benson, D M	17949	Byrde, R J W	17965	Croghan, D L	18233
Adlerz, W C	18083	Benson, M L	18211	Cafley, J D	17930	Cronkite, E P	18293
Ahmed, H	17777	Bergeland, M E	18209	Calkins, C O	18100	Crosskey, R W	17744
Ahrens, J F	18157	Berlin, H	18410	Callow, L L	17795	Crowe, M V	18373
Aker, N L	18482	Beroza, M	18483	Campbell, A D	18416	Csupka, S	18487
Akita, M	18202	Bethel, R S	17822	Campbell, W C	18357	Cunningham, G N	18183
Albin, R C	18234	Beute, M K	17950	Cancrday, T D	18125	Curl, S E	18234
Albrecht, J E	18179	Bhallia, H S	17951	Carach, J	18487	Cutler, H G	18437
Alexander, D C	18203	Biely, J	18280	Carley, H E	17966	Cysewski, S J	18184
Alexeiev, A N	17778	Biesbrock, J A	17952	Carr, D J	18468	Dakwa, J T	17968
Alicata, P	17737	Bigland, C H	18211	Carrel, J E	17816	Daniel, M D	18235
Allen, G E	17779	Bigler, W J	18298	Carriere, J A J	18203	Daum, R J	17856
Allen, J L	18360	Biland, H R	18490	Carroll, E J	18208	David-West, T S	18236
Allred, J N	18204	Bilkovich, F R	18212	Carvalho, J C M	17742	Dayhuff, T R	18231
Alper, T	18205	Binninger, C E	18213	Casida, J E	17796	18232	
Alsop, D W	17816	Birchfield, W	17918	Castro Umana, J J	17797	Dean, M R	17862
Altschul, A M	18449	Bird, L S	17978	Castro, J	18432	Deep, I W	17973
Amante, E	17780	Bishop, J L	17900	Cavell, B D	18485	DeGroot, R C	18438
Ambrozova, J	18479	Bitakaramire, P K	18354	Chabricr, P	17800	Dekker, A J	18389
Ananthakrishnan, T N	17738	Black, H S	18427	Chada, H L	17784	Deleurance, S	17808
Andersen, F L	18282	18449		Chalk, T E	18033	DeLoach, R E	18407
18353		Black, L L	17953	Chambers, D L	18117	DeMilo, A B	17798
Anderson, J D	17916	Blackman, G E	18421	Chanana, A D	18293	Demozay, D	17800
Anderson, P M	17969	Blakeley, P E	18097	Chang, S C	17798	Denis, J	17745
Anderson, W W	17781	Blenden, D C	18214	Chang, S I	18226	DePew, L J	18091
Andress, C E	18248	Blumenfield, M	17788	Channon, A G	18433	Derbyshire, J B	18228
Anellis, A	18383	Boatman, S G	18421	Chapman, R A	18443	Deubler, M J	18221
Anonymous,	18175	Bodon, L	18215	Chappell, W E	18158	Deyoe, B L	18237
Aragaki, M	17939	Bolwyn, B	17954	Chee, K H	17967	Dickerson, C T	18160
Ardrey, W B	18206	Bond, J O	18265	Chen, J T	18486	Dickinson, D J	18434
Arguelles-Rasa, E	17940	Borecki, Z	17955	Chen, P S	17799	Diener, T O	17974
Arlinghaus, R B	18308	Borg, K	18411	Chen, T	18133	Dikshith, T S S	17903
Armstrong, C H	18207	Borkovec, A B	17798	18447		Dillard, L H	18341
Arnoldi, K V	17739	Bott, T L	18216	Cheng, H H	18086	Djafarov, Sh m	17880
Arny, D C	17990	Bottrell, D G	17789	Cheymol, J	17800	Dochinger, L S	17975
Aronson, S J	17941	Bourdette, J R	18182	Chhabra, K S	18115	Dodd, F H	18194
Asello, L	18221	Bowen, E T W	18302	Chiang, H C	17801	Dodd, K	18238
Ashrafuzzaman, M H	17942	Bowler, K	17896	17802, 18087		Doherty, R L	17910
Ashton, G C	18348	Bowman, M C	18104	Chicco, C F	18227	Doi, R	18359
Atkins, M D	18084	18400, 18483		Chitra, C	17803	Dolin, V G	17746
Awad, T M	18386	Bowne, J G	18217	Chmielewski, W	17743	Dooley, K L	18382
Babcock, M B	17782	Boyle, J A	17867	Chomicz, L	18358	Dooling, O J	17958
Bachmann, P A	18285	Bradley, J R	17790	Chorin, M	18046	Dorward, W J	18255
Bachrach, H L	18309	Brams, E A	18428	Christensen, C M	18031	Douglas, D R	17976
18345		Brannaman, B L	18005	Claborn, H V	17823	Dowding, V M	17809
Bacic, B	18409	Braten, T	18355	Clanton, J R	18330	Drummond, R O	18347
Backstrom, J	18180	18356		Clarke, J H	18377	Druzelyubova, T S	17810
Baerg, D C	17783	Braund, D G	18218	Clarke, M C	18205	Dua, P M	18185
Bagga, H S	17943	Brener, W D	17956	18228		Ducnnenberger, M	18490
Bailey, C L	17784	Brewan, J G	17909	Claveran Alonso, R	17919	Duggan, R E	18388
Bajaj, Y P S	18422	Brian, M V	17791	Clawson, A J	18179	Duggleby, W F	17811
Bajpai, G K	17917	Brickey, P M	17792	Clegg, L F L	18409	Dunagan, T T	18186
Bakry, N	17785	Brignoli, P M	17741	Clements, J B	18468	Duncan, C J	17896
Balachowsky, A S	17740	Brinkerhoff, L A	17957	Clench, H K	17864	Duniway, J M	17977
Baldissera, S	17851	Brinkhous, K M	18181	Clerk, G C	17968	Dunleavy, J M	18455
Ball, L	18208	Brinkhouse, K M	18223	Cleveland, T C	17856	Dunn, S	18161
Banerjee, A K	17917	Bris, E J	18219	Clifford, A J	18182	Durbin, R D	17977
Banerji, S K	18387	Britton, W M	18220	Clower, D F	17790	Durkin, J	17819
Banihashemi, Z	17944	Brodey, R S	18221	Cohen, S E	17804	Duthoit, C M G	18092
Banttari, E E	18085	Brown, A L	18222	Cole, H	17969	Dutkiewicz, J	17812
Barba, R C	18423	Brown, D G	18271	18027		Dyar, R C	17831
Barber, D A	18424	Brown, D H	17958	Cole, K W	18181	Dziedzicka, A	17813
Baretas, P K	18448	17959		18223		Easterday, B C	18336
Barnes, D M	18209	Brown, G E	17960	Cole, R H	18159	18343	
Barrick, E R	18183	Brown, J F	18060	Coley-Smith, J R	18434	Ebeling, W	17814
Barrow, G J	17914	Brown, R C	18181	Collins, W J	17805	Ebrahim, S A	18176
Barry, C K	17786	18223		Cone, W W	18088	Economides, C V	18042
Barth, A	18472	Brown, R H J	17793	Cook, A A	17970	Eguchi, M	17815
Barth, K M	18271	Brown, T S Jr.	18429	Cook, D	18373	Eide, C J	17976
Basham, H G	17945	Bruehl, G W	17971	Cook, R J	17971	18013	
Bastian, J	17820	Brune, D	18484	Cooke, R C	18134	Eisenberg, W V	17792
Bateman, D F	18460	Bryant, W E	18131	Coon, B F	17806	Eisner, T	17816
Bates, J J	18425	Brzeski, M W	18132	18089		El Hammady, M	18048
Baumann, C A	18242	Buckley, P M	18431	Corbin, J B	18435	El M'Saddia, K	17817
Beal, V C	18204	18458		Cornell, C N	18181	El-Sayed, E S I	17818
Beardsley, D W	18349	Bull, T A	18430	18223		El-Sharkawy, T A	18439
Beck, E W	18400	Burke, C N	18224	Costonis, A C	17972	El-Tobshy, Z M	18239
Beck, S D	17876	Burkowicz, A	17961	Cottreau, P H	18229	El-Zein, A	18240
Beckenbauer, W H	18222	17989		Cottral, G E	18325	El-Zik, K M	17978
Becker, H N	18279	Burleigh, J R	17962	18326		Elinov, N P	18475
Beckman, C H	17956	Burnet, B	17902	Coulson, R N	17748	Ellett, C W	18064
Bedding, R A	17731	Burns, W C	18363	Courtright, J B	17807	Ellington, J J	17819
Beer, S V	17946	Burrows, G E	18225	Cousins, C M	18409	Ellis, D J	18249
Beevers, L	18426	Burt, E C	17856	Cowart, W O	18230	Erb, R E	18189
Beig, D	17851	Burton, G W	18104	Cowling, E B	18018	18190	
Beliram, R	17947	Burton, R L	18104	Coyier, D L	18436	Ereogovich, C D	18027
Bell, M R	17856	Burton, R P	17794	Craig, J	18015	Eren, J	18440
Belli, L B	18210	Busch, L V	17963	Cramp, W A	18205	Erkal, U	18073
Belser, W L	18432	Bush, R G	17912	Craven, B R	18090	Erwin, D C	17979
Benjaminson, M A	17787	Bushnell, W R	17964	Crawford, J G	18231	Esaac, E G	17996

AUTHOR INDEX

Esbo, H

Esbo, H	18441	Green, C D	18136	Huisingh, D	18439	Knappa, J J	18271
Esch, H	17820	Green, R J	17921	Hulley, P E	17905	Knapp, F W	18373
Esenther, G R	17747	Griffin, G D	18137	Hunt, E G	18385	Knoke, J K	17767
Espanol, F	17821	Griffin, G J	18445	Hunter, D K	17837	Kochan, W J	17996
Eto, M	18241	Grigoropoulos, S G	18417	Huo, W H	18258	Koenigs, J W	18450
Eugenio, C P	18442	Grills, E E	17734	Hulin, J W	17939	Koerber, T W	18101
Evans, E D	18389	Groeneweg, J F	18488	Ichihara, T	18241	Koger, L M	18272
Everett, P H	18083	Groenewegen, L J M	18080			Kohler, E M	18273
Ewan, R C	18242	Grogan, R G	18037	Imamaliyev, A I	18448	Kojima, M	18102
Ewing, B B	18390	Gross, W B	18294	Imamura, T	17752	Kolk, H	17924
Faccioli, G	17988	Guernsey, F S	18426	Imberski, R B	17838	Komersova, I	18454
Fairchild, M L	17866	Guerra, A A	17829	Inoue, I	18259	Kongsvik, J R	18011
Falcon, L A	17822			Inoue, Y K	18260	Koontz, R F	18012
Farley, J D	17980	Guier, M-C	18446	Ishikawa, M	18263	Koppa, P	17753
Fay, R W	17844	Gunner, H B	18384	Ito, F	18261	Kosova, A A	17754
Feldman, A W	18138	Gunnink, J W	18335	Iverson, L G K	18495	Kosuge, T	17946
Feldman, J M	18047	Hackman, W	17750	Ives, N F	18379	Kowal, R J	18118
Fennell, M A	18234	Hagedorn, D J	18078	Ives, W G H	17839	Kozar, M	18366
Fenwick, H S	18062	Haggart, M	18206	Iwasaki, K	18252	Kozar, Z	18366
Ferguson, A W	17920	Hagmann, L E	17843	Iwata, A	18252	Krieg, A	18103
Fernelius, A L	18243	Hagstrum, D W	17830	Izrailksy, V P	18002	Kroll, R E	18013
Ferrero, D	17740	Halg, D A	18205	James, L F	18188	Krugman, S L	18451
Ferris, J M	18156	Hall, G O	18341			Kucharek, T A	18452
Feulner, R L	18162	Hallab, A B	18393	Jander, R	17786	Kulasegaram, P	18266
Fielding, A H	17965	Hammer, U T	18414	Janes, M J	18349	Kulik, S A	17755
Figueiredo, P	18166	Hammon, W M	18265	Jansen, J	18263	Kung, K S	17848
Finco, D R	18244	Hampson, R J	18433	Jarrett, E E E	18364	Kuo, M S	18453
Finlayson, D G	18093	Hanks, R W	18138	Jarrett, W F H	18364	Kybal, J	18454
Fischman, A	18360	Hanson, L E	18344	Jasper, D E	18264	Kyrou, N C	17925
Fisher, F E	17981	Hanson, R P	18235	Jennings, W L	18265	La Greca, M	17849
Fletcher, L W	17823	Hara, F	18252	Jensen, L D	18394	Labzoffsky, N A	18236
Fontes, A V	17742	Haramaki, C	18164	Jesep, C T	17840	Lai, P Y	18455
Foot, W D	18192	Harder, D E	17991	Jimenez-Millan, F	18142	Lal, T B	18014
Ford, R E	17982	Harding, H	17992	Jochim, M M	18217	Lall, R M	17850
Foster, J A	17983	Harding, J A	17831	Joel, D D	18293	Lallmahomed, G M	18015
Fowler, M E	18412	Hariharasubramanian,	17993	Joffe, A Z	18003	Lalor, W F	18493
Francis, J	18245	Harling, J	17832	Johanns, J C	17999	Lam, J J	17736
		Harmon, S A	18077	Johnson, H W	18004		
Frank, F W	18246	Harper, A M	18097	Johnson, J C	18400	Lancaster, J L	18350
Franklin, R T	17748	Harris, F A	17833	Johnson, J E	18197	Landim, C da C	17851
Free, J B	17732	Harris, J H	18066	Johnson, L B	18005	Lassiter, J W	18274
Friend, R J	17984	Hartman, R K	18357	Johnston, H W	18006	Latterell, F M	18016
Frye, J	18124	Harvey, A E	18489	Jones, F G W	18140	Lau, L S	18390
Fukuto, T R	17785	Hashimoto, H	18253	Jones, H C	18449	Laut, J G	17926
Fulton, H G	18093	Hastie, A C	17922	Jones, P H	18189	Lavie, D	18046
Fung, P H	18247	Hatch, R C	18254			Lawhaswasdi, K	18320
Funnell, H S	18254	Hauschild, A H W	18255	Jordan, A M	17867	Leben, C	18017
Furr, R E	18094	Hawkins, J D	18187	Jordan, F T W	18266	Lecadet, M M	17852
Fye, R E	17824	Hawkins, J L	17912	Josephson, K L	17911	Lee, S G	18456
Gallit, J	18163	Hayes, B W	18349	Joyner, L P	17873	Leeling, N C	18482
Gallagher, P A	18413	Hayes, T J	18375	Juberthie-Jupeau, L	17841	Lehnert, T	17881
Gallian, M J	18231	Hayman, D S	17994	Juhasz, S	18191	Leiderman, L	18166
Gallo, J T	18391	Heagle, A S	17995	Jurado, R	18374	Leland, S E	18166
Gangwere, S K	17825	Heald, C M	18139	Jurberg, J	17853	Lent, H	18275
		Heathcote, G D	18098	Kaiser, M N	17733	LeRoux, E J	17853
Gaona-Rodriguez, H	17985	Hedin, P A	18124	Kamp, H	17842	Leuk, D B	18086
Garcia-Hidalgo, F	18142	Hedqvist, K-J	17751	Kane, N R	17822		
Gardiner, B G	17777	Helton, A W	17996	Kao, V P	17923	Levi, M P	18018
Gardner, W S	17986	Henderson, J W	18361	Kaplan, W	18221	Levine, N D	18353
Gaskin, D E	17749	Hendrick, R D	17834	Karbe, E	18267	Levita, B	17895
Gecan, J S	17792	Hendrix, F F	17952	Karpel, M A	17843	Lewandowska, I	18367
Geissinger, H D	18248	Hendrix, W	18072	Kassanis, B	18007	Lewis, A L	18265
Geldreich, E E	18392	Henary-Logan, K R	18416	Katz, M	18395	Lewis, D J	17854
Gentry, C E	18443	Henson, L	17997	Kawasaki, M	18268	Lewis, J A	18019
Germaine, F W	18204			Keeling, B L	18004	Lewis, J M	18368
Getty, S M	18249	Henson, W	18462	Keen, N T	18008	Lewis, L C	17882
Ghemawat, M S	17987	Heydrick, F P	18256	Keirans, J E	17844	Lewis, W J	17855
Gibbs, H C	18372	Hildebrandt, A C	18063	Kelly, A F	17791		
Giese, R L	18129	Himoe, E	17904	Kelsey, J M	17845	Libby, J L	18105
Gilbert, R G	18021	Hinneberry, T J	17847	Kenaga, C B	17987	Lim, S M	18020
Gill, H S	18444	Hirai, A	17998	Kendrick, J B	18463	Linderman, R G	18021
Giordano, A R	18288	Hirth, R S	18369	Kenny, K V	18269	Lindley, E P	18276
		Hirumi, H	18133	Kerkut, G A	17846	Line, R F	18022
Gold, A H	17988			Kerr, E D	18009	Linero, M Q de	17756
Goldbloom, D E	18250	Hocking, D	17999	Keup, L E	18402	Link, J D	18379
Golden, A M	18135	Hoff, R J	18000	Khan, N A	18318	Linseott, D L	18167
Goodchild, D J	17909	Holt, R W	18434	Khare, M N	18444	Lipa, J J	17743
Goodman, R N	17961	Holub, E	18494	Kindler, S D	18099	Lippincott, B B	18023
		Hongo, K	18362	King, E W	17764	Lippincott, J A	18023
Gordon, D E	18251	Hoogstraal, H	17733	King, J E	18434	Lisk, D	18403
		Hooker, A L	18020	King, T H	17966	Lisker, N	18003
Gordon, D T	17990			Kingsolver, C H	18022	Littlefield, L J	17941
Gorman, B M	17910	Hooker, W J	17948	Kinloch, B B Jr.	18010	Litton, C C	17997
Gossling, J	18307	Hooper, B E	18207	Kiraly, Z	17847	Livshitz, I S	17757
Gould, H J	18095	Hormchong, N	17957	Kirk, J K	18270	Ljungberg, G	17924
Gould, J H	18486	Horton, J C	17947			Lloyd, E P	17856
Gracia, O	18047	Hosein, I	18001	Kirk, V M	18100	Lobanov, A M	17758
Grass, E E	18296	Houser, B B	18363	Kishaba, A N	17847	Lockwood, J L	17980
Grasso, A	17827	Howard, E F	17835	Kitamura, Y	18365	Lodhi, A F	17927
Graves, J B	17790	Howarth, J A	18257	Kitayama, H	18365	Loegering, W Q	18024
Gravitz, N	17828	Hsu, C K	18282	Klein, A K	18379	Logomarsino, J V	18391
Gray, D E	17747	Hughes, I W	17836	Knake, E L	18165	Loken, K I	18312

AUTHOR INDEX

Sikes, D

Lopez-Abella, D	18142	Mertz, D	18462	Patterson, R S	18110	Robinson, R A	18312
Lopez, E	17823	Meszaros, J	18215	Pattyn, S R	17735	Rodricks, J V	18416
Lougheed, G J	18035	Metcalf, R L	17785	Paxton, J D	18020	Roelfs, A P	17962
Lovely, W G	17831	Meyer, D L	18292	Payne, J A	17764	Rogers, C E	18373
Lovitt, A E	17883	Meyerholz, G W	18279	Peacock, W J	17909	Rogers, N C	17957
Low, D G	18244	Mikulina, R V	18149	Pederson, G L	18395	Rohwer, G G	18378
Lowery, R S	18400	Millazzo, F H	18035	Pee, C E	18022	Romig, R W	17962
Lozano, J C	18025	Miller, C R	18036	Peleg, J	17870	Romuary, J	18215
Luedke, A J	18217	Miller, J W	17928	Pepper, J O	17806	Roncadori, R W	18052
Luethi, C	18490	Miller, L D	17864	Perimner, T R	18094	Roney, J N	18128
Luginhuhl, R E	18224	Miller, P M	17929	Perrotta, G	17933	Ross, A F	17983
Luke, H H	18057	18143		Perry, A S	17844	Ross, D B	18313
18147		Millikan, D F	17955	Peterson, C F	18206	Roth, H	18112
Lukens, R J	18026	Mills, J H L	18369	Peterson, L G	17871	Roth, L M	17765
Lykken, L	18401	Milne, K S	18037	Petrasova, M	18487	Rout, G	18113
Mac Bain, A G	18494	Miner, J R	18404	Pettit, B J	17872	Routledge, J K	18332
Macias, W	18132	Minyard, J P	18124	Pettit, R E	18043	Rowell, J B	17964
MacKay, M R	17857	Mircetich, S M	18463	Phillips, L A	18306	Rud, O E	18171
Mackenthun, K M	18402	Mishima, M	18241	Pickard, J R	18279	Rupphrah, N S	17766
MacKenzie, D R	18027	Mishra, G S	18370	Pickrell, J A	18307	Rusch, V	18017
MacLaren, J P	17912	18371		Pienkowski, R L	17900	Russell, R S	18424
MacMillan, J	18485	Mitchell, R	17752	Pier, A C	18184	Russell, W G	18114
MacSwan, I C	17973	Mitrofanov, V I	17757	Pierpoint, W S	18045	Saaltink, G J	17932
Macy, R M	17906	Mook, J H	17761	Pillon, D	17800	Sachs, M	18467
Madden, D L	18277	Moon, H W	18293	Pinkas, J	18046	Saettler, A W	18422
Maeda, K	17939	Moore, M B	17995	Pitcher, R S	18145	Saffanova, V M	17778
Mahmood, M A	18318	Moore, R B	18273	Pitman, R M	17846	Saiduddin, S	18192
Maier, C R	18028	Moore, W E C	18294	Pitre, D	18109	Saini, M L	18115
Main, C E	18029	Moral, A	18374	Plumb, S	18136	Salmon, A J	18314
Majer, J	18454	Morehouse, L G	18230	Plummer, C B	18275	Sander, K	17878
Makarova, L A	17810	Morton, J D	18274	Pohland, F G	18405	Sanders, D P	18352
Malik, R A	18106	Moscovici, C	18295	Pol, E W	18406	Sanderson, J	18424
Mandales, S	18457	Moulthrop, J I	18296	Polatnick, J	18308	Sang, J H	17902
Mann, W F	18107	Mount, M S	18038	18309		Sanz, F	18374
Manners, C I	18278	Mowat, G N	18316	Polson, D E	18466	Sarkissian, I V	18470
Manning, A	17858	18317		Pomeroy, B S	18296	Sarjak, D	17957
Mansfield, M E	18279	Mueller, A	17886	Pond, W G	18391	Sather, G E	18265
18368		Muenster, O A	18380	Pontis, R E	18047	Satoh, H	18365
Maramorosch, K	18133	Muller, A S	18053	Pope, A L	18242	Saunders, J L	17767
March, B E	18280	Munk, R	17865	Post, F J	18100	Savitzky, B P	17768
Marchetti, M A	18016	Murayama, D	18102	Post, J E	18310	Scaramuzzi, G	17933
Margulies, L	17907	Murdoch, W P	17912	Pound, G S	17953	Schaffer, J F	17987
Markin, G P	17859	Murtomaa, A	18039	Powell, D M	18122	Schanderl, S H	18482
Marsh, P B	18108	Musick, G J	17866	Powell, R G	18421	Scheffer, R P	18453
Martin, C E	18207	Nash, T A M	17867	Pozsar, B I	18048	Scheilenbaum, M	18490
Martin, F H	18281	Nasir, M A	18040	Pramer, D	18134	Schieber, E	18053
Martin, N E	18030	Natalizi, G M	17827	18440		18054	
Martin, R J	18282	Nath, R	18116	Prasad, S K	18146	Schkljar, S N	18002
Martin, W J	17918	Nayar, J K	17868	Prentice, J L	18438	Schmidt, R C	18315
Martinez, A P	18049	Neal, F C	18275	Price, W C	18049	Schmitthener, A F	18017
Martouret, D	17852	Neave, F K	18194	Procter, B G	18372	18064	
Matsumoto, T T	18458	Nemeth, I	18191	Pruess, K P	18111	Schnurrenberger, P R	18282
Matsumo, K	18283	Newell, K W	18342	Pryce, R J	18485	Schoeneweiss, D F	18055
Matthysse, J G	18403	Newhall, A G	18041	Punter, D	17930	Scholten, H	18056
Maxwell, C W	17860	Newton, W L	18297	Purnell, R E	17873	Schryver, H F	18221
Maxwell, D		Nicholls, C F	17734	Qualset, C O	18050	Schwartz, H	18471
Maxwell, D P	18460	Nichols, J B	18298	Quattrochi, L P	17874	Schwenk, P von	18472
Mayor, O Y	18284	Nicoletti, P	18299	Quevedo, M M	18192	Scott, H G	17913
Mayr, A	18285	Nightingale, H I	18464	Quintana-Muniz, V	18127	Scrivner, L H	18246
McCall, S R	18066	Niild, L	18255	Raatikainen, M	17875	Sechler, D	18057
McCauley, E H	18286	Nishibe, Y	18260	Radzichovskaja, R	18311	Sechler, D T	18147
McCormick, W H	17979	Norris, J F	17819	Rahn, E M	18162	Seeman, J	18195
McCoey, J R	17856	Nose, I	18283	18168		Seidman, G	18473
McCracken, F I	18461	Novilla, M N	18300	Rainey, D P	18051	Seinhorst, J W	18148
McCullough, N B	18277	Nunberg, M	17762	Randolf, N M	18123	Seligman, I M	17879
McErlean, B A	18287	Nyberg, P A	18301	Rao, B V	18381	Sellers, R F	18316
McFadden, M W	17861	O'Bannon, J H	18144	Rappaport, L	18467	18317	
McGee, D C	18031	O'Reilly, K J	18302	Raros, R S	18087	Senotrusova, V N	17769
McGuire, T C	18213	Oberg, K-e	18415	Rawlins, W A	18110	Sequeira, L	18025
McIntyre, R J	17862	Ghahayashi, M	18365	Ray, B R	18169	Seth, M L	18116
McKay, K A	18203	Okada, S	18283	Raychaudhuri, S P	18116	Shalkop, W T	18382
McKercher, P D	18288	Okuntzova, E V	17768	Reddy, M N	18008	Sharpe, H B A	18228
18289		Oliger, G	17763	Reed, G L	17882	Shaver, T N	18096
McKibben, G E	18368	Olson, C	18328	Reid, D M	18468	Shaw, J G	18117
McKibben, G H	17856	Orlova, G I	18002	Reiersen, D A	17814	Shealy, Y F	18124
McLaughlin, R E	17856	Ose, E E	18380	Reinert, R A	18009	Sheffy, B E	18285
McMahon, D A	18302	Osipov, G V	17869	Relimpio, A	18374	Sheikh, S A	18318
McMasters, V R	18290	Otani, H	18303	Retnakaran, A	17876	Shepard, J F	18058
McMillan, R T	18032	Ozawa, Y	18304	Rhoades, H E	18307	Sheppard, A C	18485
McNeilan, R A	17973	Pal, S G	18305	18344		Sheridan, J E	18059
McVicar, J W	18326	Pande, B P	18370	Rich, S	17929	Shevchenko, A K	17880
Mead, F W	17764	18371		17931		Shikata, E	18102
Medvedev, L N	17759	Pangaldan, R	17847	Richardson, H H	18112	Shimanuki, H	17881
Mehl, R	17760	Pantulu, J V	18465	Richmond, D V	18469	Shipman, R D	18172
Meinershagen, W A	18246	Papasolomontos, A	18042	Richter, E	18068	Shipton, W A	18060
Meinwald, Y C	17816	Papavizas, G C	17921	Riemer, D N	18170	Shoukry, K S M	18061
Mellanby, K	17863	Papp-Vid, G	18215	Riggan, W B	18473	Showers, W B	17882
Melville, S C	18033	Parent, B	18109	Rizajeva, M I	18448	Shrivastava, S P	17796
Mengeling, W L	18291	Parida, S C	18113	Roach, S H	17877	Shupe, J L	18262
Merrill, W	18018	Parrott, D M	18140	Roberts, D A	18049	Shyamala, M B	17803
18034		Partida, g J	17887	Roberts, E C	18124	Siegl, G	18285
Merry, D L	18222	Partridge, J E	17979	Roberts, J A	18351	Sikes, D	18319

AUTHOR INDEX

Sikes, R K

Sikes, R K	18315	Suhrbier, R	18494	Tsao, P H	17847	White, E A	18232
Silverborg, S B	17959	Susidko, P I	18119	Tsivoglov, E C	18407	White, F H	18337
Simco, J S	18350	Sussman, D E	18196	Tu, J C	17982	White, G	18302
Simpson, M E	18108	Sutherland, J R	18150	18072		White, W B	18129
Simpson, W R	18062	Sutherland, O R W	18120	Tunblad, B	18126	Whitehead, R H	17910
Singh, B B	18381	Sutmoller, P	18325	Tunoda, T	18241	Widmark, G	18408
Singh, H	18193	18326		Turkoglu, K	18073	Widmer, B	17799
Singh, H H	17884	Sweet, R D	18160	Turner, E C	17794	Wilhelm, A R	18340
Singh, M	18063	18173		Turner, J P	17823	Wilkinson, D R	17937
Singh, S	18177	Swenson, G A	18344	Tweedy, B G	18425	18076	
Siradhana, B S	18064	Swensson, A	18418	Ueno, H	18252	Wilkinson, G T	18420
Sisson, V	17802	Szatalowicz, F T	18214	Ulberg, L C	18179	Willets, H J	18477
Smerlis, E	18065	Szidat, L	18327	Ullah, Z	18040	Williams, I H	18093
Smith, A	18194	Taber, R A	17934	Uno, K	18241	Williams, J E	18341
Smith, C E G	18302	18043, 18069		Urquhart, G M	18364	Williams, L F	18224
Smith, C T	18491	Taber, W A	17934	Ursprung, H	17838	Williams, L P	18342
Smith, D H	18179	18069		Ushijima, J	18333	Williams, P H	17953
Smith, J W	18417	Tagiltsev, A A	17769	Vago, C	17893	18008	
Smith, L W	18474	Tajima, M	18328	Valenta, V	18039	Williams, T D	18140
Smith, P C	18320	Takahashi, M	17888	Van Dyke, C G	18074	Williamson, R L	17899
Smith, R H	18118	Takahashi, Y	18283	Van Houweling, C D	18496	Willson, C	17828
Smith, S	18273	Talerico, R L	17889	Van Walleghe, P A	18334	Wise, M B	18183
Smith, S H	18066	Taliaferro, C M	18104	Vanterpool, T C	18069	Wiseman, H G	18382
Snocenybos, G H	18321	Tamaki, G	18121	Vengris, J	18174	Witherell, S S	18478
Snowdon, W A	18316	18122		Vermeulen, H	17999	Witte, K H	18343
Soave, O A	18322	Tandon, I N	17917	Verner, M A J	18335	Wolke, C E	18395
18323		Tanaka, H E	18329	Verrett, M J	18416	Wolfe, M S	18130
Soderstrom, E L	17883	Tappan, W B	18147	Vey, A	17893	Wong, K	18156
Sofer, W H	17838	Tariq, Z K	17772	Vick, W E	18320	Woodley, J	18395
Sollod, A E	18375	Tashiro, H	18117	Vignau, J	17894	Woodruff, A W	18376
Somerhalder, B R	18111	Taylor, D P	18135	Vinson, S B	17855	Woods, C W	17798
Somers, E	18469	Teetes, G L	18123	Vleeschauwer, L	17735	Woods, G T	18344
Sommer, N F	18431	Teliz, D.	18070	Vogt, P K	18295	Woods, T A D	18084
18458		Temple, C	18124	Vollmar, H	17878	Woods, A M	17900
Soulsby, E J L	18375	Teploukhova, T N	18151	Vosdingh, R A	18336	Worley, R E	18077
Sparks, A K	18395	Terzian, L A	17885	Vuillaume, M	17895	Woude, G F V	18308
Spelsberg, T C	18470	Thanh, T N	17800	Wagenbach, G E	18419	18345	
Srivastava, K P	17884	Thizy, A	17800	Wagner, R E	17814	Wright, C C	17901
Stahler, N	17885	Thomas, A S	18161	Waldhalm, D G	18246	Wright, C P	17908
Stall, R E	17970	Thomas, H A	17773	Walker, D W	18127	Wyllie, T D	18131
Standfast, H A	17914	Thomas, L	18246	Walker, J W	18204	Yagi, H	18346
Stanton, J S	18320	Thompson, A C	18124	Walker, R J	17846	Yanders, A F	17909
Staples, R	18067	Thrasher, J J	17792	Walsh, A F	18337	Yang, S M	18078
18099		Thrasher, J P	18330	Wandera, J G	18338	Yau, T M	18186
Stedman, S	18128	Thyr, B D	18071	Wani, W D	18454	Ylimaki, A	18079
Steelman, C D	18090	Tichomirova, A L	17890	Ward, G M	18197	Yoshitake, N	17815
Stegmaier, C E	17770	Tieken, E L	18286	Wareham, A C	17896	Young, H C Jr.	18452
Stein, V W	18068	Tietjen, W L	17891	Warner, D N	17887	Young, S	18208
Stempffer, H	17771	Tiffon, Y	18178	Warrington, R E	18339	Yuasa, R	18333
Stern, V M	17886	Tilavov, T	17892	Watanabe, S	18241	Zadoks, J C	18080
Stevenson, E L	18161	Tillman, A D	18182	Watters, F L	17897	Zaitlin, M	17993
Stewart, P A	17736	Tingle, F C	17856	Way, J M	18075	Zajciw, D	17774
Stokes, G W	17997	Todd, G C	18382	Webster, J M	18146	Zavortink, T J	17775
Stoloff, L	18416	Todd, J W	18125	Webster, G T	18111	Zemanek, J	18479
Stoner, M F	18492	Tokumaru, T	18331	Weeks, R E	18121	Zemskaya, A A	17915
Stoner, R D	18293	Tomlinson, H	17931	Wells, H D	18139	Zentmyer, G A	18432
Stoyakov, A V	18149	Torok, D	17935	Wene, G P	17898	18463	
Strandberg, J D	18324	Townshend, J L	18152	18128		Zeyen, R J	18085
Strauss, J	18195	Townshend, T L	18153	Werkowski, S	18383	Zhirnunskaaya, N M	18480
Street, J C	18262	Trainer, O O	18336	Westermarck, T	18198	Zimmerer, R P	18481
Stroev, S S	18475	Trautman, R	18345	Westoo, G	18199	Zinn, D W	18234
Strong, R G	17887	Treece, R E	17766	Wetters, E J	17910	Zscheile, F P	18005
Struck, R F	18124	Trudgill, D L	18154	Whelan, D L	18197	Zuckerman, B M	18384
Sudakova, I M	18149	Trum, B F	18332	White-Stevens, R	17936	Zumt, F	17776
Sugawara, M	18102					Zwet, T Van Der	18081

ORGANIZATIONAL INDEX

- Agricultural Research Service
18366
- Alberta University, Canada
Dept. of Food Science
18409
- American Phytopathological Society
17938
- Bristol University, Great Britain
Dept. of Botany
18477
- California University, Berkeley
Dept. of Biochemistry and Entomology
17828
- California University, Davis
Dept. of Plant Pathology
18070
- California University, Davis
School of Veterinary Medicine
18257
- California University, Riverside
Dept. of Plant Pathology
18463
- Canada Dept. of Agriculture, Vineland
Research Station
18153
- Canada National Research Council
18035
- Canadian National Health
Quebec Ministry of Health
18329
- Central Veterinary Laboratory, Weybridge,
Surrey, England
18284
- Chimes Terrace, Vineland, N. J.
18471
- Ciba Ltd., Basel, Switzerland
18490
- Clemson University
Dept. of Entomology and Zoology
17764
- Consejo Superior de Investigaciones Cientificas,
Madrid, Sp
18142
- Cornell University, Ithaca, N. Y.
Dept. of Entomology
18110
- Cornell University, Ithaca, New York
18391
- Dept. of Forestry of Canada, Sillery, Quebec
Forest Research Laboratory
18150
- Division of Research and Training Grants,
Bethesda, Maryla
Tulane University School of Medicine, New Orleans, Louisiana; Dept. of Tropical Medicine and Public Health; Division of Epidemiology
18342
- Hochschule fur Landwirtschaft, Bernburg,
Germany
Institut fur Naturwissenschaften
18472
- Indian Lac Research Institute, Namkum, India
17903
- Japan Ministry of Education
Scientific Research Fund
17752
- Louisiana State University, Baton Rouge
Dept. of Entomology
17790
- MacDonald College of McGill University,
MacDonald Col
Lege P. O., Quebec; Dept. of Entomology
18086
- Medical Research Council
18211
- Michigan State University, East Lansing
Depts. of Food Science and Entomology
18482
- Minnesota University
18201
- National Aeronautics and Space Administration
National Institutes of Health
18457
- National Institute for Research in Dairying,
18194
- National Institute of Allergy and Infectious
Diseases
18337
- National Institute of Allergy and Infectious
Diseases
Laboratory of Parasitic Diseases
18297
- National Institute of Health
18063
- National Institutes of Health
17876, 18186, 18307, 18323
- National Institutes of Health
National Institute of Allergy and Infectious Diseases
18331
- National Institutes of Health
National Institute of Allergy and Infectious Diseases; U. S. Communicable Disease Center
18353
- National Institutes of Health
National Science Foundation
17838
- National Institutes of Health
U. S. Public Health Service
18322
- National Institutes of Health
Wisconsin University, Madison; Dept. of Veterinary Science
18235
- National Science Foundation
17801
- National Vegetable Research Station, Warwick,
England
18075
- Nevada University, Reno
18192
- North Carolina State University, Raleigh
18183
- North Carolina State University, Raleigh
Dept. of Plant Pathology
18018
- Ohio Agricultural Research and Development
Center, Wooster
Dept. of Zoology
17766
- Ohio State University, Columbus
18064
- Oklahoma Agricultural Experiment Station,
Stillwater
18182
- Pennsylvania University, Philadelphia
School of Veterinary Medicine; U. S. Public
Health Service
18375
- Phytopathological Society of Japan
18044
- Post-graduate College of Animal Sciences,
Izatnagar, India
Indian Veterinary Research Institute
18381
- Public Health Service
18224
- Public Health Service
Connecticut University, Storrs; Dept. of Animal
Diseases
18369
- Purdue University, Lafayette, Indiana
Dept. of Entomology
18156
- Rhode Island University, Kingston
Dept. of Plant Pathology-Entomology
17956
- Rothamsted Experimental Station, Harpenden,
England
18146, 18155
- Rubber Research Institute of Malaya, Kuala
Lumpur, Malaysia
18421
- Saskatchewan University, Saskatoon, Canada
Dept. of Biology; National Science Foundation
18069
- Sydney University, Sydney, Australia
Dept. of Agricultural Botany
18060
- Texas A and M University, College Station
18352
- U. S. Agency for International Development
18105
- U. S. Atomic Energy Agency
18127
- U. S. Atomic Energy Commission
18271
- U. S. Dept. of Agriculture
Institute for Plant Protection, Posen, Poland;
Laboratory of Parasitology
17743
- U. S. Dept. of Agriculture, Athens, Georgia
Southeastern Forest Experiment Station
18052
- U. S. Dept. of Agriculture, Beltsville, Maryland
Agricultural Research Service; Crops Research
Division
17921
- U. S. Food and Drug Administration
18270, 18388, 18396, 18397, 18398, 18399,
18476
- U. S. Public Health Service
18020, 18134
- U. S. Public Health Service
National Cancer Institute
18295
- U. S. Public Health Service
National Institutes of Health
17816
- U. S. Public Health Service
National Institutes of Health; University of Illinois, Urbana; Dept. of Plant Pathology
18076
- U. S. Public Health Service
U. S. Army Medical Research and Development
Command
18265
- U. S. Public Health Service
Wisconsin University, Madison; Dept. of Plant
Pathology
17953
- United Nations Educational, Scientific and
Cultural Organiz
18305
- United States Public Health Service
18417
- USSR Academy of Sciences, Moscow
Institute of Evolutionary Morphology and Ecology of Anima
17890
- West Pakistan Agricultural University, Lyallpur,
Dept. of Plant Pathology
18040
- Wisconsin University Graduate School
18363
- Wisconsin University, Madison
18242
- Wisconsin University, Madison
Dept. of Entomology
17767
- Wisconsin University, Madison
Dept. of Veterinary Science
18336
- World Health Organization
18260
- Zoological Museum, Helsinki
17750

U.S. DEPARTMENT OF AGRICULTURE
WASHINGTON, D.C. 20250

OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF AGRICULTURE

To stop mailing ☐ or to change your
address ☐ send this sheet with new
address to Pesticides Information
Center, National Agricultural Library,
Washington, D C. 20250

M. Spicer
4-19-66 U. S. National Arboretum
LIB-PEST Washington, D. C. 20250